



EPA Region 5 Records Ctr.



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# RESULTS OF RCRA CA-725 ENVIRONMENTAL INDICATORS AIR QUALITY SAMPLING

*Prepared for*



**Solutia, Inc.**

Sauget, Illinois

*Prepared by*

**TRC Environmental Corporation**

Windsor, Connecticut

August 5, 2003



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August 5, 2003

Mr. Ken Bardo  
RCRA Division  
U. S. Environmental Protection Agency, Region 5  
77 West Jackson Blvd.  
Chicago, IL 60604

**Re: Results of Indoor Air and Soil Vapor Sampling and Analyses  
Solutia W. G. Krummrich Plant  
Sauget, Illinois**

Dear Mr. Bardo:

Attached are three copies of a report containing the results of the air quality sampling that was carried out at the Solutia W. G. Krummrich Plant earlier this summer. The sampling and analyses were performed in accordance with a Work Plan that was submitted to you on December 12, 2002 and amended on February 25, 2003 and March 28, 2003, following a site visit by you.

The results of the sampling program indicate that that indoor air in all of the buildings sampled does not contain any chemical constituents at concentrations which exceed the Permissible Exposure Limits (PELs) defined by the Occupational Safety and Health Administration (OSHA). The indoor air samples in two of the buildings contained one compound each (not the same in both cases) that was present at a concentration in excess of the screening values defined in a recently released EPA guidance document on vapor intrusion. However, the results clearly demonstrate that the soil vapor under and around these buildings is not the source of these compounds.

We are currently planning to begin the second round of air quality sampling required by the Work Plan in the next two weeks. Because the constituent concentrations in the indoor air quality samples were so much less than the OSHA PELs, and were only marginally in excess of the screening levels defined in the vapor intrusion guidance document, we propose to limit future air quality sampling to soil vapor only.

We look forward to receiving your comments on the attached report and on our proposal

August 5, 2003

to eliminate additional indoor air sampling. If you have any questions, please call me at the Krummrich Plant (618) 482-6362.

Sincerely,  
Solutia Inc.

*Robert J. Hiller per Richard Williams*

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Project Coordinator

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Attachment B: Soil Gas Sampling Point and Building Location Map

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## 1.0 INTRODUCTION

TRC Environmental Corporation, under contract with Solutia, Inc., performed an air quality sampling program at Solutia's W.G. Krummrich plant in Sauget, Illinois to facilitate the completion of the Resource Conservation and Recovery Act (RCRA) Human Exposure Environmental Indicators (EI) report (CA-725). The sampling followed a field sampling plan (FSP) presented initially in December 2002 and modified on March 28, 2003 based upon U. S. Environmental Protection Agency (EPA) Region V comments. A copy of the final sampling plan is included as Attachment A.

All samples were collected over the period from March 29 through April 2, 2003. The sampling consisted of 15 soil vapor sample locations and interior locations of four buildings on the W.G. Krummrich plant site and five soil vapor sampling locations on adjacent properties. This report discusses the results of those samples and compares them to the EPA "Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils" (Subsurface Vapor Intrusion Guidance) (67 FR 71169) and to Occupational Safety and Health Administration Permissible Exposure Limits (PELs). However, the comparison to the target indoor air concentrations given in the draft guidance is not considered to be the appropriate measure of risk evaluation in this case. The guidance document notes that "...EPA does not expect this guidance to be used in settings that are primarily occupational." It further notes that "OSHA and EPA have agreed that OSHA generally will take the lead role in addressing occupational exposures." Consequently, the OSHA PELs are considered to be more appropriate for evaluating worker risks arising from exposure to indoor air. Moreover, the target indoor air concentrations listed in Table 2 of the guidance document are based on application of a model in which the receptors at the surface are residents in homes. Thus, the target concentrations in Table 2 are more applicable to a residential exposure than to an occupational scenario.

To satisfy the requirements of the RCRA CA-725 process, the evaluations need to include all the pathways for human exposure from a potential underground source. Human exposure at the workplace is an end point of the air pathway, which this sampling seeks to define. This pathway starts with volatilization or partitioning of constituents from the dissolved plume in ground water below the site. Those constituents are then present as vapors in the soil. An extensive soil vapor sampling program that included simultaneous indoor/outdoor sampling

was conducted in and around specific buildings to determine if vapors from the ground water plume are present in the soil and if a potential human exposure pathway was “complete”. If vapors occur in the soil, the pathway continues through the migration of those vapors to the buildings in which people work. Thus, it is the purpose of this sampling to determine whether such a pathway exists and, if so, to what extent any measurable indoor concentrations are due to this pathway or to other sources. It is important to recognize that sources from the outdoor environment and from within the building can also impact ambient indoor air quality. These other sources are independent of the potential underground sources.

## **2.0 INDOOR AIR QUALITY SAMPLING**

Samples were collected at four buildings on the W.G. Krummrich plant site (the building locations are shown on the map, Figure 1 in Attachment B):

- BBZ - Storeroom
- BBG – West Shop
- CCB – East Shop
- BK – Administration Building.

These buildings were selected because plant personnel were assigned to these buildings to perform administrative functions (office work) and the buildings are not closed and designed with high volume air exchange systems. This design, which is used at the operations control buildings at the plant, minimizes migration of soil vapors into interior air spaces.

Indoor air samples were collected on March 29, 2003, when the buildings were being heated. Ambient temperatures during the indoor air sampling ranged from 41° - 46°F. Qualitative airflow measurements at exterior doorways confirmed that the buildings sampled were under negative pressure, the expected result in the heating season.

Samples were collected indoors over 8-hour periods in the buildings at locations within the breathing zones of workers. For three buildings, a sample was also taken simultaneously at the fresh air intake; at the fourth building (BBZ), a sample was collected at the air intake to the office area. This was necessary to differentiate between sources related to interior operations, ambient exterior air, and soil vapors. The sampling occurred during the weekend day shift to minimize the disturbance to the personnel working in the area and to obtain samples not affected by normal workday activities. By sampling during the weekend day shift, the possibility of sample contamination from another source (workers clothes and shoes) was greatly reduced.

Samples were analyzed using EPA Method TO-15 for the analysis of a list of target volatile organic compounds (VOCs), while Method TO-13 was used for semi-volatile organic compounds. The results are summarized in Table 2-1, and the laboratory reports are presented in Attachment C. None of the results were above the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs). Air concentrations were above the EPA target indoor concentrations at and only two locations. It is emphasized that TABLE 2-1 only contains the compounds that were detected in the samples. All compounds not listed in this table were not detected. A description of the results in each building is presented below.

**Table 2-1:  
Indoor/Outdoor Air Sampling Results (in ppbv)**

**Date of Sampling: March 29, 2003**

	Target Indoor Concentration (ppbv)	OSHA PEL (ppbv)	Detection Limit (ppbv)	Building BBZ		Building BBG		Building CCB		Building BK Administration		
				Offices	Warehouse	Indoors	Outdoor Air at Bldg. Intake	Indoors	Outdoor Air at Bldg. Intake	Indoors 1 <sup>st</sup> Floor	Indoors Basement	Outdoor Air at Bldg. Intake
<i>Sample No. (abbreviated)</i>				<i>BBZ-O</i>	<i>BBZ-I</i>	<i>BBG-O</i>	<i>BBG-I</i>	<i>CCB-O</i>	<i>CCB-I</i>	<i>BK-1st</i>	<i>BK-Dist</i>	<i>BK-I</i>
<b>Method TO-15 Results</b>												
Benzene	9.8	1,000	0.86	ND	ND	0.86*	ND	ND	0.92*	ND	ND	ND
Methylene Chloride	150	25,000	0.86	60	25	87	ND	440	3.1	13	24	2.2
Chlorobenzene	13	75,000	0.86	ND	ND	0.86*	ND	1.6	1.0*	ND	ND	0.94*
4-Methyl-2-Pentanone (methyl isobutyl ketone, MIBK)	20	200,000	3.4	130	160	5.4	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone (2-butanone, MEK)	340	200,000	3.4	20	22	21	9.8	ND	ND	ND	ND	ND
Acetone	150	100,000	3.4	7.4	5.2	110	ND	20	3.4*	4.4	4	4.5

Method TO-13 semi-volatile organic compounds were not detected.

All samples collected on March 29, 2003.

“ND” indicates not detected (detection limits are below target concentrations).

\* Sample is at or near detection limit

### Building BBZ - Storeroom

This building is primarily a warehouse with offices and some small production areas. The offices chosen for sampling have a ceiling-mounted air handling system that draws and conditions air from inside the warehouse. Inside the offices, low concentrations of acetone, methyl ethyl ketone (MEK), and methylene chloride were detected. All of these concentrations were well below the target indoor air levels and the OSHA PELs. These compounds were also detected in the air intakes for the offices. The other compound detected, 4-methyl-2-pentanone (methyl isobutyl ketone or MIBK) was detected in concentrations above the target indoor air concentration listed in the Subsurface Vapor Intrusion Guidance, but orders of magnitude below the OSHA PELs. As with the other compounds detected in this building, a slightly higher concentration was measured at the air intake to the offices.

In addition, a soil vapor sample was taken immediately adjacent to the BBZ building (sample SVP-16). The result shows small amounts of MIBK (3.9 ppbv), but none of the other target compounds were detected. The next closest soil vapor sample, across the street approximately 100 feet to the east (SVP-12), did not contain any MIBK. MIBK was found in the soil vapors of SVP-14, which is some 1,000 feet north of the BBZ building.

Thus, it can be concluded that the MIBK found in Building BBZ offices most likely came from the ambient (outdoor) air or internally in the warehouse. It should be noted that over a million pounds of product is stored in the storeroom. The product is manufactured from various ketone compounds (including MIBK) and, as such, could be a source of MIBK due to offgassing. As well, the offices are used by personnel from the nearby manufacturing areas. As a consequence, there is continuous traffic into and out of the office areas. Further, all personnel who work in this area have undergone hazard awareness training and are familiar with the hazards of the workplace.

### Building BBG – West Shop

The indoor air sample from Building BBG contained the following compounds:

- Benzene
- Methylene Chloride
- Chlorobenzene
- MIBK
- MEK

- Acetone

The concentrations of benzene and chlorobenzene were at the detection threshold and an order of magnitude below target concentrations. The concentrations of MIBK, MEK and methylene chloride were all below target indoor concentrations and the OSHA PELs. MEK was detected in the intake air sample, however no other compounds were detected in the building intake sample.

#### Building CCB - East Shop

The indoor air sample at this building contained methylene chloride above the target indoor air concentration, but almost two orders of magnitude below the OSHA PEL. There was also a trace concentration of methylene chloride in the intake air suggesting an outdoor air source was partly responsible. There were also low concentrations of chlorobenzene and acetone, but these compounds were also in the intake air suggesting that ambient air is at least a partial source. Acetone is a solvent that can be found as a component of cleaning or degreasing solutions at the shop. Benzene was found in concentrations near the detection limit in the intake air, but not inside the building.

Soil vapor sample SVP-9 was collected approximately 300 feet south of the CCB building (Note: Sample probe SVP-7, located adjacent to Building CCB, was saturated on the date of the sampling, so a vapor sample could not be collected). The sample from SVP-9 contained tetrachloroethene and 1, 2-dichlorobenzene. These compounds were not detected in Building CCB. Sample SVP-9 did not contain any methylene chloride. It is useful to note that methylene chloride was detected in all of the indoor air samples, but was not found in any soil vapor sample.

These data suggest that the compounds found in Building CCB most likely came from the ambient air or a source in the building. The latter source is considered to be the most likely. Methylene chloride has been commonly used as a degreaser in shop areas within the plant. Hence, it would not be surprising to detect it in indoor air at low concentrations.

#### BK Administration Building

Two samples were collected indoors at worker breathing zones in Building BK, one on the first floor and one in the basement. Methylene chloride and acetone were detected at concentrations below the indoor air target concentrations and the OSHA PELs. Acetone was

detected at a similar concentration in the intake air to the building; methylene chloride was also detected in the intake air at a concentration less than the concentration in the indoor air sample. Chlorobenzene was found in the intake air at concentrations near the detection limit. However, chlorobenzene was not found in the building.

The soil vapor sample next to the BK building (SVP-6) contained low concentrations of MIBK and acetone, but no detectable methylene chloride. MIBK was not detected in the building indoor air sample. This soil vapor sample contained tetrachloroethene (PCE) at concentrations above the target concentration for shallow soil vapor, but PCE was not detected in either the ambient air or the building interior air samples.

### Ambient Air Samples

General ambient air samples were taken in conjunction with the soil vapor sampling, i.e., on the same dates and time of the soil vapor samples (refer to Figure 1 for the soil vapor sampling locations). These samples were taken on the east side of the plant (at soil vapor points SVP-9 and SVP-17) and on the west side of the plant (at soil vapor points SVP-1 and SVP-21). These samples showed small concentrations of chlorobenzene, 1,4-dichloroethane, acetone and methylene chloride. Acetone was detected in three of the four samples and the other compounds were detected in only one sample each. Table 2-2 shows these sample results. These samples confirm that these compounds are present in the general ambient air. However, the concentrations are well below both the target indoor air levels defined in the draft EPA guidance and the OSHA PELs.

### 2.1 Summary of the Indoor Air Sampling Results

With only two exceptions (discussed below) the measurements taken indoors in the four selected buildings showed concentrations below the EPA target concentrations for indoor air. Of all volatile organic compounds in the shallow groundwater, only five appeared in any building's intakes or indoor air. Two of these (benzene and chlorobenzene) were close to the detection limits and appeared infrequently. Acetone was often present both indoors and outdoors at relatively low levels. MEK and MIBK were present near the ketone production area and in the ambient air as well. Finally, methylene chloride was not found in the shallow soil vapors, but was present in the ambient air both indoors and outdoors. No semi-volatiles in the shallow ground water appeared in any of the indoor air samples.



**Table 2-2:  
Ambient Air Sampling Results (ppbv)**

Method TO-15	Target Indoor Concentrat ion	OSHA PEL	Detection Limit	Sampling Dates		
				March 31, 2003 (SVP-Background Sample-033103)	April 1, 2003 AM (Background Air Sample-040103- AM)	April 1, 2003 PM (Background Air Sample-040103- PM)
Methylene Chloride	150	25,000	0.98	ND	ND	7.6
Chlorobenzene	13	75,000	0.96	ND	2.6	ND
Acetone	150	100,000	3.8	ND	4.7	19
1,4 Dichloro- benzene			6.96	ND	1.5	ND

“ND” represents not detected (detection limits are below target concentrations).

The methylene chloride in Building CCB is, most likely, from a source inside the building, although there is likely also some minor contribution from the ambient outside air. Similarly, the MIBK in the Building BBZ office air sample also appears to be from the ambient (warehouse) air. The source of the ambient air concentrations does not appear to be soil vapor in the areas near the Building BBZ.

In summary, therefore, although the indoor air in two of the four buildings sampled exceeded the target indoor air concentrations defined for a residential exposure scenario by the EPA Subsurface Vapor Intrusion Guidance, the concentrations were well below the applicable OSHA PELs, which are considered to be the appropriate standard. Further, the compounds detected in the buildings did not appear to be the result of volatilization from shallow groundwater. Rather, the source(s) of these compounds appear(s) to be the indoor and/or outdoor ambient air and, possibly, product stored within the buildings themselves.

### **3.0 SOIL VAPOR SAMPLING**

A total of 20 soil vapor locations were sampled. Of these, 15 were on the plant and selected specifically for the purpose of determining the soil vapor concentrations that might result in vapor intrusion into buildings. The other five were grab samples taken along the benzene pipeline that runs from the plant toward the river to determine if the pipeline was a potential source of benzene leakage.

#### **3.1 In Plant Soil Vapor Sampling**

Seventeen soil vapor probes (SVP-1 through SVP-17) were installed at the approximate locations shown on the map in Attachment B. Although sampling was attempted at all locations, two locations (SVP-7 and SVP-13) could not be sampled due to saturated conditions on the date of sampling.

The analytical results are summarized in Table 3-1 and the laboratory reports are presented in Attachment C. Overall, eleven target VOCs were detected using Method TO-15; only one semi-volatile organic compound (SVOC) was detected using Method TO-13. The target shallow soil gas concentrations from the EPA's Subsurface Vapor Intrusion Guidance document are also listed in Table 3-1 next to the detected compounds. These target concentrations are considered to be screening levels for the potential for intrusion of the specific compounds into overlying or immediately adjacent buildings. However, it is emphasized that the screening is only relevant as an indicator of the possible intrusion into adjacent buildings. If no buildings are in the immediate vicinity of the sample location, or if sampling in an adjacent building does not result in the detection of the screened compound, then the screening exercise should not be used as an indicator of possible human health risk.

It should be noted that as part of the field and laboratory sampling procedures, a volatile tracer (tetrafluoroethane) was used to identify leaks in the sampling apparatus. That volatile tracer was detected in some samples, and those samples are noted in the "Comments" row of Table 3-1. In the instances where the tracer was detected, there is the possibility of leakage of ambient outdoor air into the sample during sampling or intrusion of laboratory air during analysis.

##### **3.1.1 Samples With Elevated Results**

There were two samples in which soil vapor concentrations were consistently above the

**Table 3-1:  
Soil Vapor Sampling Results (ppbv)**

	Target Shallow Soil Gas Concentrations	Detection Limit	Concentration in Soil Gas Sample																
Sample Location (SVP-#):			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Method TO-15:											D	D				D			
4-Methyl-2-pentanone (MIBK)	200	3.7	ND	ND	ND	ND	ND	ND	D	ND	ND	ND	ND	ND	D	72000	7.8	3.9	ND
1,1,1-Trichloroethane	4000	0.94	ND	ND	ND	ND	ND	ND	D	ND	ND	ND	170	9.8	E	ND	ND	ND	ND
Tetrachloroethene	48	0.94	ND	ND	1.9	ND	ND	150	L	1.1*	55	ND	92	2.9	L	ND	ND	ND	ND
Chlorobenzene	130	0.94	ND	ND	ND	ND	ND	ND	D	ND	ND	31000	ND	ND	D	2200	20	ND	ND
1,2-Dichlorobenzene	330	0.94	ND	ND	ND	ND	ND	ND	E	ND	46	870	ND	ND	E	ND	8.2	ND	ND
1,4-Dichlorobenzene	1300	0.94	ND	ND	ND	ND	ND	ND	L	ND	ND	4500	ND	ND	A	ND	3.2	ND	ND
Chloroform	22	0.94	ND	ND	ND	ND	ND	ND	S	11	ND	ND	ND	ND	S	ND	ND	ND	ND
Benzene	98	0.94	ND	1*	ND	ND	ND	ND	S	1.5	ND	680	ND	ND	S	1100	ND	ND	3.5
Acetone	1500	3.7	7.6	ND	ND	ND	ND	6.7	S	11	ND	ND	ND	ND	S	ND	ND	ND	11
Methylene Chloride	1500	0.94	ND	ND	ND	ND	ND	ND	L	ND	ND	ND	ND	ND	L	ND	ND	ND	ND
2-Butanone (MEK)	3400	3.7	ND	ND	ND	ND	ND	ND	O	ND	ND	ND	ND	ND	O	ND	ND	ND	ND
Method TO-13									N						N				
Aniline	N/A	0.05**	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND		0.43	ND	ND	ND
Comments					leak?						leak?								leak?

\* Near Detection Limit  
 "ND" represents not detected (detection limits are below target concentrations except where noted with a "D" at the top of the column).  
 "N/A" Not Applicable  
 "Leak?" denotes where the tracer gas was detected in the sample, either from leakage during field sampling or during laboratory analysis  
 \*\* Based upon a detection limit of 1 ug and an average sample volume of 20 liters

target concentrations. Soil vapor sampling point SVP-10 is in the southeastern corner of the plant. It is immediately above an area known to have shallow VOCs and SVOCs in high concentrations in ground water. This soil vapor sample contained benzene, chlorobenzene, and two isomers of dichlorobenzene in concentrations above the target concentrations. However, this sample is in an area that does not have nearby buildings and, thus, does not pose a potential human health risk from vapor intrusion into buildings.

The compounds do not appear to be migrating to the ambient air in any appreciable concentrations. All of the ambient air and indoor measurements contained only very small concentrations of two of these compounds (benzene and chlorobenzene) and neither of the two dichlorobenzene isomers was detected. One of the outdoor ambient air samples (at location SVP-9) was located within 500 feet of this soil vapor sampling point.

Sample SVP-14 is located in the ketone manufacturing area of the northwestern portion of the plant. The soil vapor sample at this location contained MIBK, chlorobenzene, and benzene. It also contained a small quantity of the semi-volatile aniline. There are no buildings near this sampling location and, hence, vapor intrusion will not be an issue. As with SVP-10, the benzene and chlorobenzene are not found in significant concentrations in any of the ambient air samples and it is unlikely that the soil vapors are escaping into the ambient air. Additionally, no aniline was found in the ambient air. MIBK was found in the BBZ and BBG buildings, although these buildings are far enough away that the SVP-14 location is an unlikely source for an airborne pathway to those buildings. Further, the SVP-14 soil vapor probe was installed through 3 to 4 inches of asphalt, meaning that it is highly unlikely that vapors are emitted to the ambient air at that location.

Tetrachloroethene (PCE) was detected above the target concentration at three locations (SVP-6, SVP-9, and SVP-11). Although PCE was detected in samples from locations SPV-6, next to the BK Building, and SVP-11, across the street from Building BK, no detectable tetrachloroethene was found in the air samples taken in or around this building. This suggests that even though tetrachloroethene is present in the soil vapors, it is not entering the building or mixing with the ambient air. At SVP-9, which is in the southeastern corner of the plant, the tetrachloroethene was reported at a concentration slightly above the target concentration. Again, it was not measured in Building CCB ambient indoor air sample or the intake air sample.

No other soil vapor samples contained any compounds that were detected at concentrations even approaching the target concentrations. In fact, only a limited number of

analytes were detected in any of the soil vapor samples.

### 3.2 Benzene Pipeline Samples

Five soil vapor samples were collected along the benzene pipeline and analyzed for target VOCs by Method TO-15 to determine the potential for soil vapor contamination by the pipeline. These samples were taken as grabs rather than by pumping from probes driven into the soil as was done on the plant site. A summary of the results is presented in Table 3-2 and the locations are shown on the map (Figure 1 in Attachment B). Only two analytes were detected, acetone and MEK, at concentrations which were orders of magnitude less than the target shallow soil gas concentrations.

<p align="center"><b><u>Table 3-2:</u></b> <b>Benzene Pipeline Soil Vapor Grab Samples (ppbv)</b></p>							
	Target Shallow Soil Gas Concentrations	Detection Limit	Concentration in Soil Gas Sample				
<i>Sample Locations (SVP-#)</i>			18	19	20	21	22
<i>Method TO-15</i>			**				
Acetone	1500	3.7	6.3	5.6	4.2	12	9
MEK	3400	3.7	8.4	11	5.5	ND	8

“\*\*” denotes where the tracer gas was detected in the sample

“ND” represents not detected (detection limits are below target concentrations).

## 4.0 DATA QUALITY ISSUES

### 4.1 Samples Collected

The indoor/building intake sampling was completed at all the intended locations. During the initial installation of the soil vapor probes, one of the planned locations, adjacent to the BBG building, was omitted. However, since the results from the sample collected within the BBG Building were all less than the target indoor concentrations, no soil vapor data was necessary at that location and the probe was not subsequently installed.

Two soil vapor sample locations were abandoned because the soil vapor probe filled with water. One of these, SVP-7, was also next door to a building (CCB). Since the issue at CCB is methylene chloride and methylene chloride was not detected in any the other soil vapor samples, it is reasonable to conclude that it is not present at SVP-7. The other site which was abandoned was SVP-13, near the previous location of a benzene tank and over areas identified with high shallow ground water concentrations. SVP-2 is less than 200 feet west of SVP-13. Benzene was the only compound detected in this sample, at a concentration close to the detection limit. The sample from SVP-15, to the southeast of SVP-13, contained only minor concentrations of a few compounds.

The volatile tracer gas (tetrafluoroethene) was detected in four samples at concentrations up to 2,100 ppbv. The presence of the gas indicates leakage either during field sampling, when ambient outdoor air could have entered the sample, or during laboratory analysis, when ambient laboratory air could have entered the sample. In either case, the results at these locations may not be entirely representative of soil vapor concentrations, as acetone, methylene chloride, chlorobenzene, and 1,4-dichlorobenzene were detected in the background air samples.

Method TO-13 was added to the sampling program to obtain data on semi-volatile compound concentrations. The sample preservation methods employed were not consistent with the method in all respects. It was noted by the laboratory that all samples were not refrigerated and not returned to the laboratory in the original reflective sleeves. The use of the sleeves would reduce the likelihood of absorbing contaminants from the plastic shipping bag. The detection of aniline in only a few samples and not in the field blank suggests that this error did not compromise the samples. Refrigeration would reduce the likelihood of organic compound degradation or volatilization loss between collection and analysis. The short sample turnaround times (72 hours) and the use of Method TO-15 for the VOCs should minimize the influence of

this error on data quality. Icing was done on the second set of soil vapor samples sent to the laboratory and no semi-volatile, other than aniline, was detected. Consequently, although these deficiencies are noted, it appears unlikely that they compromised data quality.

Duplicate samples were taken daily throughout the soil vapor sampling exercise. In addition, an indoor air duplicate sample was taken in the basement of the administration building (BK) and a background air duplicate sample was collected. The duplicate sample results are as follows:

<b>Indoor Air Sample Duplicate Comparison (ppbv)</b> <b>(Building BK-Basement)</b>			
<b>Analytes</b>	<b>Original</b>	<b>Duplicate</b>	<b>Ratio</b>
Acetone	4.0	4.1	1.03
Methylene Chloride	24	18	0.75

<b>Background Air Sample Duplicate Comparison (ppbv)</b> <b>(SVP-23/SVP-23 Duplicate)</b>			
<b>Analytes</b>	<b>Original</b>	<b>Duplicate</b>	<b>Ratio</b>
Acetone	19	18	0.95
Methylene Chloride	7.6	7.3	0.96

<b>Soil Vapor Sample Duplicate Comparison (ppbv)</b>			
<b>Samples/Analytes</b>	<b>Original</b>	<b>Duplicate</b>	<b>Ratio</b>
<b><i>SVP-10 / SVP-100</i></b>			
Benzene	680	660	0.97
Chlorobenzene	31000	32000	1.03
1,2-Dichlorobenzene	870	810	0.93
1,4-Dichlorobenzene	4500	4400	0.98
<b><i>SVP-14 / SVP-140</i></b>			
Benzene	1100	1100	1.00
Chlorobenzene	2200	2300	1.05
MIBK	72000	75000	1.04
Aniline	8.6	6.4	0.74
<b><i>SVP-4/SVP-4 Duplicate</i></b>	<b>all non-detect</b>	<b>all non detect</b>	
<b><i>SVP-12/ SVP-12 Duplicate</i></b>			
1,1,1-Trichloroethane	9.8	9.4	0.96
Tetrachloroethene	2.9	2.8	0.97
<b><i>SVP-8/SVP-8 Duplicate</i></b>			
Chloroform	11	11	1.0
Benzene	1.5	1.6	1.07
Tetrachloroethene	1.1	1.1	1.0
Acetone	11	12	1.09

All trip blanks and laboratory blanks had no detections of any analyte.



## 5.0 CONCLUSIONS

The intensive sampling of soil vapor, indoor ambient air, and outdoor ambient air conducted during March 29 through April 2, 2003 leads to the following conclusions:

- The impacted shallow groundwater beneath the W. G. Krummrich plant is not resulting in unacceptable indoor air quality at the plant. In two process area buildings (BBZ and CCB), VOCs were detected in the office area samples at concentrations above the EPA target indoor concentrations (MIBK and methylene chloride, respectively), but well below the OSHA PELs for these compounds. The draft EPA Subsurface Intrusion Guidance notes that these target indoor air concentrations are not intended for use in industrial exposure scenarios and that OSHA guidelines are more appropriate in these circumstances. The presence of these compounds is apparently due to outdoor air sources and/or sources within these buildings. The analytical results for the soil vapor sample collected adjacent to Building BBZ (SVP-16) supports the conclusion that soil vapor is not the primary source of the VOCs detected in the indoor air. In the case of Building CCB, the only analyte which exceeded the target indoor air concentration was methylene chloride, which was detected in all the indoor air samples and none of the soil vapor samples, suggesting a common indoor source. A soil vapor sample was not collected immediately adjacent to Building CCB for comparison, due to an apparently high water table on the date of sampling, but the nearest soil vapor sample, approximately 300 feet from the building, did not contain methylene chloride. In both cases, the measured concentrations in indoor air are well below the OSHA PELs.
- Indoor air samples collected from Buildings BBG and BK (administration building) did not contain target analytes at concentrations above the EPA target indoor concentrations.
- Benzene, chlorobenzene, or isomers of dichlorobenzene (the largest components of the plumes in ground water below the site) were not found in significant amounts in any of the buildings. The amounts found were slightly above the detection limits and were orders of magnitude below the EPA target indoor concentrations and the OSHA PELs. The logical source for those minimum detectable concentrations found is the ambient air.

- The soil vapor sampling showed five locations with concentrations above the EPA soil vapor target concentrations. These samples were not located in areas with buildings and there is no evidence of migration (either through the soil, or in the air) to the buildings sampled. One of these sample points was below an asphalt cover.
- The benzene pipeline does not appear to be leaking to the soil.

# **Attachment A**

## **Field Sampling Plan and Field Data Summary Sheets**

# Soil Vapor Probe Installation and Sampling Protocol

## Sampling Objective/Approach

Soil vapor samples will be collected at the 17 on-site locations. The intent is to collect samples during cold weather (March) and warm weather (June), so permanent soil vapor sampling probes will be installed.

In areas above the plume where no buildings are present or where buildings are built on slab, shallow soil vapor samples will be collected at a probe depth of 5 to 6 feet below grade, which will place the probe sufficiently deep to minimize temperature and barometric pressure fluctuations. In areas above the plume where buildings with basements or lower levels are present (Building BK, the main office building), soil vapor samples will be collected at a probe depth at or below the lowest floor or basement level. The soil vapor implant depths will be targeted to more-permeable soil zones within the target depths. In the event that water-saturated conditions are encountered at or above the target probe depth, the probe depth will be modified to above the depth of saturation.

## Probe Installation and Sampling Equipment

The following equipment is recommended for soil vapor probe installation and soil vapor sampling:

- direct-push drilling rig with Geoprobe™ Macrocore sampler, acetate liners, probe tip, and probe rods;
- Geoprobe™ stainless-steel implant (AT 86, or similar), 6" length;
- Geoprobe™ implant anchor (PR14 or equivalent);
- Geoprobe™ glass beads (AT84), or clean silica sand;
- flexible Teflon tubing, 1/4-inch outer diameter;
- flexible Tygon tubing of appropriate sizes to connect drive tubing to SUMMA canister and to the sorbent-media tubes;
- tubing fittings: plugs, ferrules, nuts, 'T's;
- SUMMA canister (6 liter) with vacuum gauge and restrictive inlet (45-minute and 90-minute fill time);
- bentonite (granular or powdered) and potable water;
- wind socks or flags;
- narrow metal tape measure or foldable fiberglass ruler;
- decontamination equipment;
- volatile tracer gas (tetrafluoroethane) in cans;
- field book, data logging forms, and chain-of-custody forms;
- flags, stakes, or other means to mark and label sampling locations;
- health and safety gear appropriate to the job; and
- miscellaneous tools (wrench, scissors, knife).

In addition, soil samples will be collected from the probe depths at the boring locations near the four buildings for analysis for total organic carbon and moisture content. Laboratory-prepared sample bottles, sampling spatulas, insulated coolers, ice and plastic bags (or blue ice), and packing materials will also be required equipment.

#### Sampling Point Installation Procedures

The soil vapor probe construction is depicted in Figure C-1. Placement of the soil vapor probes will proceed as follows:

- Identify and mark the vapor probe locations in advance; Solutia personnel will clear all locations for the presence of utilities. Label locations with unique identification numbers.
- Core pavement at paved locations to allow placement of a protective valve box upon completion.
- Advance the Macrocore sampler to the desired depth and withdraw the sampler; log the sampler return at locations where logs are not available.
- Collect and log the soil sample from the probe depth at the four boring locations near buildings. The sample will be collected directly from the acetate liner and placed into laboratory-supplied sample jars for analysis for total organic carbon and moisture content. Preserve the soil samples by storing and shipping on ice (4°C).
- Assemble the probe anchor, probe implant, and tubing (include sufficient excess tubing length to protrude from the upper end of the drive tubing) into a probe assembly.
- Install the anchor end of the probe assembly to the desired depth within the borehole either manually or by using the probe rods (use of the probe rods will be required if the boring collapses). Measure the depth to the probe implant.
- Backfill the annular space around the probe implant with glass beads; if the borehole collapses, the probe assembly will be installed into the probe rods and the implant will be advanced to the desired depth; the backfilling would then be accomplished through the probe rods.
- Similarly, backfill the remainder of the annular space to within approximately one foot of grade with bentonite chips, slightly hydrating the chips every six inches when constructing in an open hole, or hydrating upon withdrawal of the probe rods (to avoid bridging), if constructing within the probe rods.
- Cap the upper end of the tubing as soon as possible in the procedure.
- Secure the top of the installation by installing a valve box or a protective casing, as appropriate for the location.
- Secure the upper end of the tubing within the valve box or protective casing.

- Decontaminate downhole equipment which contacts the soil by washing with lab-grade detergent and potable water and rinse with potable water.

A written record will be kept of the sampling point depth and construction.

### Soil Vapor Sampling Procedures

Soil vapor sampling will proceed several days following the sampling point installation using the procedures described below. The soil vapor samples will be collected and analyzed for several volatile organic compounds and several semivolatile organic compounds, as listed below:

<b>Volatile Organic Compounds (VOCs) by Method TO-15</b>	<b>Semi-Volatile Organic Compounds (SVOCs) by Method TO-13</b>
bromodichlorobenzene	aniline
carbon disulfide	chloroaniline
1,1-dichloroethane	phenol
chloroform	chlorophenol
methylene chloride	dichlorophenol
vinyl chloride	nitrochlorobenzene
tetrachloroethane	trichlorophenol
trichloroethene	nitrobenzene
1,2-dichloroethene	pentachlorophenol
naphthalene	
chlorotoluene	
bromoform	
tert-butylbenzene	
benzene	
chlorobenzene	
1,2-dichloroethane	
1,1,1-trichloroethane	
acetone	
2-butanone (MEK)	
methyl isobutyl ketone (MIBK)	
o-dichlorobenzene	
p-dichlorobenzene	

The variety of analytes will necessitate the use of two sample collection devices: 1) SUMMA canisters and 2) sorbent media. Analyses will be conducted using USEPA Methods TO-15 and TO-13, respectively, by Air Toxics, Inc. of Rancho Cordova, CA. The two sampling methods will be employed sequentially: first by SUMMA canister followed by collection on the sorbent media. The samples collected by SUMMA canisters will be collected over a period of 45 minutes (flow rate of 0.11 liters/minute) using a flow-restrictive inlet. The samples collected on sorbent media will be collected using pre-calibrated air pumps and laboratory-supplied media; the duration of sampling will be approximately 120 minutes or more, sufficient to draw 20 liters of soil vapor

across the collection media at a rate of less than 0.2 liters/minute (lpm). Sampling times will be doubled and flow rates will be halved for the duplicate samples.

- Note the wind direction at the sampling location and record.
- Screen the ambient air with a PID and record reading.
- Connect the pump to the probe apparatus.
- Start the pump, and evacuate a volume equal to three to five sampling apparatus volumes at a low flow rate (0.2 lpm or less); record the flow rate and duration and calculate the volume removed.
- Wait for the vacuum to dissipate in the tubing.
- Remove the pump and immediately connect the SUMMA canister and 45-minute flow restrictor to the probe tubing (use 90-minute flow restrictor and Teflon 'T' for duplicate samples). Record the canister number.
- Open the valve to the SUMMA canister. Record the time.
- During the first five (5) minutes of sampling, periodically direct the tracer gas liberally around the tubing connections and around the well head.
- Return to recover the canister within 45 minutes after initiation of sampling (90 minutes for the duplicate samples).
- Close the valve to the SUMMA canister. Close the valve on the tracer gas cylinder.
- Open one sorbent media tube and break the seals; attach the downstream side to the intake side of the pump.
- Remove the SUMMA canister and immediately install the sorbent-media and pump assembly using a short length of Tygon tubing or a Teflon union.
- Start the pump at a low flow rate (target rate of 0.15 liters/minute) and record the time and flow rate. (When collecting the duplicate sample, set each of the pumps at a flow rate of less than 0.075 liters/minute, so the total withdrawal rate is approximately 0.15 liters/minute).
- Remove the flow restrictor from the SUMMA canister and pack the canister for shipping.
- Operate the pump for a sufficient duration to pull 20 liters of soil vapor across the media; record the pumping rate and duration.
- Record the pump serial number.
- Remove and cap the sorbent-media tube. Pack tube for shipping.
- Post-calibrate the pump at the end of each sampling day.
- Cap the tubing and secure the probe head.

Site conditions at the time of sampling, such as ambient air temperature and wind direction, will be recorded frequently during the sampling day. An example field data form is attached. The barometric pressure for the sampling period will be obtained from the nearest weather recording station (Lambert-St. Louis International Airport, St. Louis, MO) and barometric pressure readings will also be collected using an on-site barometer. In the event of a soaking rain, sampling will be postponed until 12 hours after the rainfall event.

## Quality Assurance/Quality Control

Care will be taken to avoid possible sources of cross contamination (e.g., gasoline, solvents, etc.) during on-site storage of sampling media. In addition, care will be taken to keep vehicles away from sampling locations during sampling set up and during sampling.

One potential interference in implementing the soil gas sampling procedure is the possibility of atmospheric air entering the sampling train and the sample. This will be minimized by construction of a bentonite seal above the sampling inlet at all locations. A tracer gas will be used at the well head of at least 50% of the wells to check for leakage. In addition, the number of tubing connections will be minimized. Ambient air samples (morning and afternoon of each sampling day) will also be collected.

Contamination of sample containers, such as inadequate canister cleaning or contamination during shipping, are possible sources of sample interference. To address this concern, the laboratory will certify the canisters and a canister blank will be collected. This canister blank will also serve as a trip blank for the SUMMA canisters. A trip blank will also be collected for the sorbent media tubes.

Duplicate samples will be collected to assess analytical reproducibility.

These quality assurance samples will be collected as follows:

***Ambient Air/Background Sample:*** Two samples of ambient air (morning and afternoon) will be collected associated with each day of sampling. A location will be selected in the vicinity of one of the sampling probe locations. The samples will be collected simultaneous to the collection of the soil vapor sample by attaching the flow inlet to the SUMMA canister, setting the intake to a height of two feet above grade, and opening the valve to allow filling at a rate similar to the soil vapor sampling rate. The sample for semivolatile organic analysis using sorbent media will be collected using a calibrated pump.

***Duplicate Samples:*** Duplicate samples will be collected at a rate of one in twenty or a minimum of one per day. Locations above the plume will be selected for the duplicate samples. A 'T' will be installed on the soil vapor probe tubing instead of the straight-line connector and two SUMMA canisters will be attached, allowing the simultaneous connection of two SUMMA canisters over a 90-minute period. Similarly, for the collection of a duplicate sample for semivolatile organic analysis, and separate tubes and pumps will be connected to the 'T' to allow simultaneous sampling.

***Trip Blank/Canister Blank:*** Each batch of SUMMA canisters, since they are reusable and subject to decontamination at the laboratory, will be certified clean by the laboratory. In addition, one canister per shipment, to be labeled "trip blank"-mm/dd/yy, will remain empty (under negative pressure) during the trip to and



from the field. The trip/canister blank will be packaged along with the soil vapor samples for the return trip to the laboratory for analysis. Upon arrival at the laboratory, it will be filled in the laboratory with lab-grade nitrogen and submitted for analysis. The trip blank for the sorbent media will be prepared by uncapping an unused tube, breaking the ends, capping the tube, and labeling and packing the tube for shipment (this will serve as both a check on field and shipping conditions).

Samples will be analyzed by the laboratory within 48 hours of receipt or within 72 hours of sample collection.

#### Sample Labeling and Handling

Sample canisters and sorbent media will arrive from the laboratory in a shipping carton.

All samples will be uniquely labeled using a consistent sample-numbering system which will differentiate these samples from other media collected from the same sample locations, as follows

For soil gas samples:

*Sample location-media-date, e.g., xxxx-SG-03/28/03*

For soil samples, the sample depth (in feet below grade) will be included in place of the date:

*Sample location-media-depth, e.g., xxxxx-SOIL-2-3*

The ambient air blank and duplicate samples will be blind-labeled. The samples will be re-packaged in the shipping cartons for return shipment from the site to the laboratory, and will be shipped overnight delivery using common carrier. The canisters and sorbent tubes will be packed to prevent breakage; no additional packing, such as ice or cold packs, is required. All sample shipments will be accompanied by a chain-of-custody form noting sample numbers, sample times, requested analyses/methods, sampler names, and signatures of sample handlers.

The lead sampler will notify the laboratory of the shipment of the samples to the laboratory and will confirm arrival.

#### References:

“How to Collect Reliable Soil-Gas Data for Risk-Based Applications, Part 1: Active Soil Gas Method”, Blayne Hartman, LUSTLine Bulletin, October 2002.

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# Soil Vapor Sampling Field Form: Probe# \_\_\_\_\_

Sample No.: \_\_\_\_\_ Date: \_\_\_\_\_

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: \_\_\_\_\_

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
<i>Pump No.</i>		<i>Pump No.:</i>	
<i>Purge rate (cc/min):</i>		<i>Purge rate (cc/min):</i>	
<i>Purge duration (min):</i>		<i>Target purge duration (min)</i>	
<i>Purge volume (cc):</i>		<i>Purge start time:</i>	
<i>Canister No.:</i>		<i>Purge finish time:</i>	
<i>Flow restrictor (min):</i>		<i>Actual purge duration (min):</i>	
<i>Start time:</i>		<i>Sample no.:</i>	
<i>Start vacuum reading (mm Hg):</i>		<i>Duplicate sample?:</i>	
<i>Finish time:</i>		<i>Duplicate sample no.:</i>	
<i>Finish vacuum reading (mm Hg):</i>			
<i>Tracer used?:</i>			
<i>Duplicate sample?:</i>			
<i>Duplicate canister no.:</i>			

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

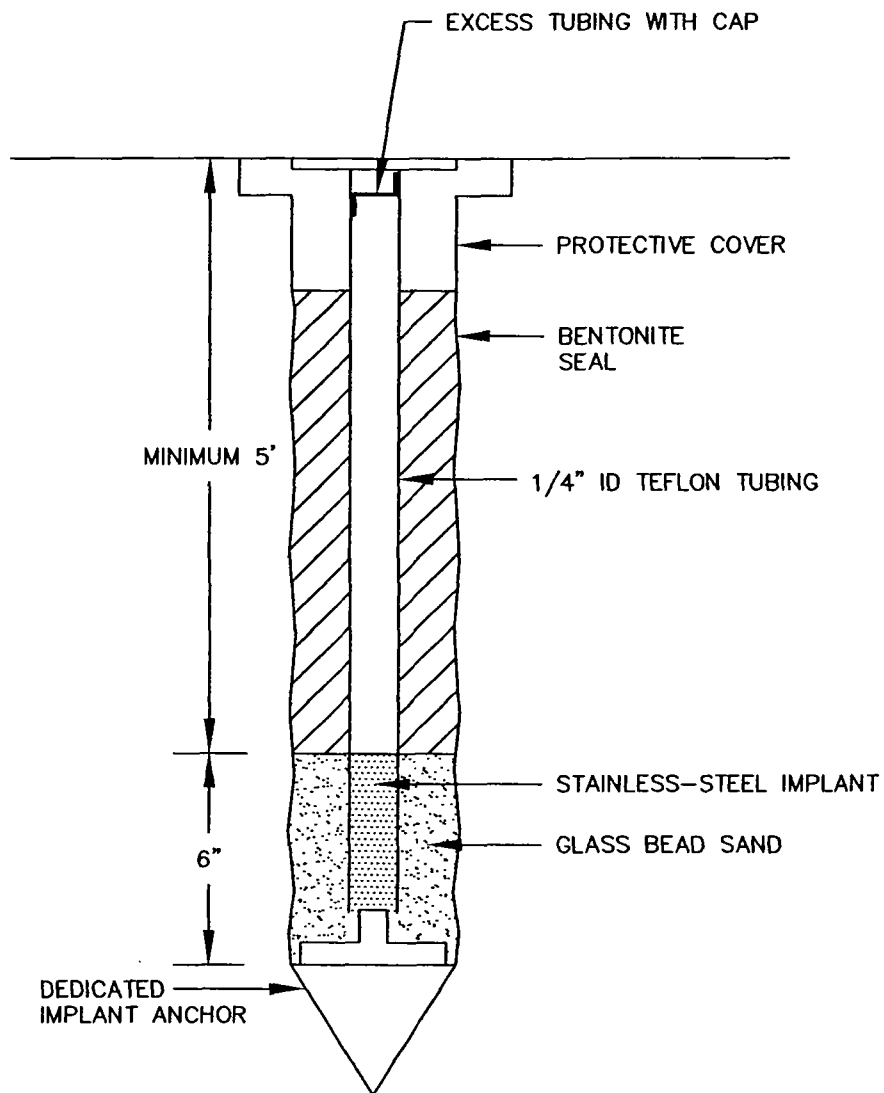
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SOLUTIA INC.  
SAUGET, ILLINOIS

## SOIL GAS SAMPLING POINT CONSTRUCTION

Date 12/18/02

Project No. 38182-0000-00000

38182\0-1

Table 1  
SOIL GAS SAMPLING POINT CONSTRUCTION SUMMARY  
SOLUTIA - SAUGET, ILLINOIS  
MARCH, 2003

Soil Gas Sampling Location ID	SVP-1	SVP-2	SVP-3	SVP-4	SVP-5	SVP-6	SVP-7	SVP-8	SVP-9	SVP-10	SVP-11	SVP-12	SVP-13	SVP-14	SVP-15	SVP-16	SVP-17
Date of Installation	3/20/03	3/20/03	3/20/03	3/20/03	3/20/03	3/20/03	3/20/03	3/20/03	3/21/03	3/21/03	3/21/03	3/21/03	3/21/03	3/21/03	3/21/03	3/21/03	3/21/03
Type of Protective Cover	Stick-up	Stick-up	Stick-up	Stick-up	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box	Road Box
(All units in feet below grade)																	
Total Boring Depth	6.08	6.08	6	6.08	6.08	12	5.5	5.5	4.75*	6.5	6.08	6.08	5*	5.5	6.17	5*	5**
Depth Interval of Bentonite Seal	0 - 5.3	0 - 5.3	0 - 5	0 - 4.83	0.5 - 5.17	0.5 - 10.5	0.5 - 4.75	0.5 - 4.5	0.5 - 4	1.5 - 5.83	0.5 - 5.33	0.5 - 5.17	0.5 - 4	0.5 - 4.67	0.5 - 4.92	0.5 - 4.25	0.5 - 4.17
Depth Interval of Implant	5.5 - 6	5.5 - 6	5.5 - 6	5.5 - 6	5.5 - 6	11.5 - 12	5 - 5.5	5 - 5.5	4.25 - 4.75	6 - 6.5	5.5 - 6	5.5 - 6	4.5 - 5	5 - 5.5	5.5 - 6	4.5 - 5	4.4 - 4.9
Depth Interval of Glass Bead Sand	5.3 - 6	5.3 - 6	5 - 6	4.83 - 6	5.17 - 6	10.5 - 12	4.75 - 5.5	4.5 - 5.5	4 - 4.75	5.83 - 6.5	5.33 - 6	5.17 - 6.08	4 - 5	4.67 - 5.5	4.92 - 6.17	4.25 - 5	4.17 - 4.92

Solutia  
Proj # 38182-  
Dennis P. Ryder  
Field Notes – 3/29/03

BK Building

Barametric Pressure:

- Exterior of building = 29.92
- Inside Distribution area = 29.96
- Inside Rick Moore Office (1<sup>st</sup> floor) = 29.96

Temperature: (° F)

- Exterior of Bldg = 41.8
- Inside of Dist area = 70.3
- Inside of Rick Moore Office (1<sup>st</sup> Floor) = 70.0

Air Flows: (fpm)

- From exterior into Dist Areas = 150
- From Training area into Dist Area = 50
- From Rick Moore Office into outer common area = 20
- From exterior into intake of AHU (on roof) = 150 (area of intake = 7' \* 4')

Note:

- Distribution Area has tile floor and finished walls (Basement area)
- 1<sup>st</sup> floor Office areas have tile floors and finished walls
- AHU is located on roof

## CCB Building

### Barametric Pressure:

- Exterior of building = 29.92
- Interior of office = 29.92

### Temperature: ( $^{\circ}$ F)

- Exterior of building = 41.9
- Interior of office = 71.4

### Air Flows: (fpm)

- Exterior into firetruck bay area = 300
- From office into firetruck bay area = 25
- From office into shop area = 25
- Exterior into shop area = 200

### Note:

- Office area has tile floors
- Shop area & fire truck bay areas have cement slab
- Walls are cinder block

## BBG Building

### Barametric Pressure:

- Exterior of building = 29.93
- Inside of office = 29.90

### Temperature: ( $^{\circ}$ F)

- Exterior of building = 46.1
- Inside of office = 59.6

### Air Flows: (fpm)

- From office to shop area = 140
- From exterior into shop area = 400

### Note:

- Cement floor in office area
- Space (approx  $\frac{1}{2}$  inch) where slab meets cinder block walls
- No visable cracks in floor



## BBZ Building

### Barametric Pressure:

- Office area = 29.89
- storage area = 29.88
- exterior of bldg = 29.89

### Temperature: (<sup>0</sup> F)

- storage area = 69.6
- exterior of bldg = 49.7
- inside office area = 67.7
- at AHU intakes = 72.2

### Air Flows: (fpm)

- from storage area into office area = 25
- At AHU intake = 25
- From exterior into storage area = 325

### Note:

- The AHU for the Office Area is located on the office roof. The office & office roof are located within the BBZ building. The air-intakes for the office AHU are located in the BBZ building.
- Some minor cracks in slab
- Gaps (approx ½ inch) where slab meets exterior walls (block)
- Office area has tile floor-painted cinder block wall

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-1 Date: 3/4/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: 1/2 5 ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1349
Canister No.:	33876	Purge finish time:	1604
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1246	Sample no.:	SVP-1-SG-046703
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	N
Finish time:	1331	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):			
Tracer used?:	—		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.5 PID = Ø  
Temp: 72  
Wind = from S

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-2 Date: 4/1/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Sauget, IL

Samplers: M. Danzella

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	0899	Pump No.:	3553
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1135
Canister No.:	22501	Purge finish time:	1350
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1047	Sample no.:	SVP-2
Start vacuum reading (mm Hg):	29	Duplicate sample?:	No
Finish time:	1132	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	9		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Barom. Press — 29.5 PID = Ø

Temp — 79

Wind from SE

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-3 Date: 4/1/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Samplers: M. Donzella Sauget, IL

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	0899	Pump No.:	9345
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1146
Canister No.:	405	Purge finish time:	1401
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1100	Sample no.:	SVP-3
Start vacuum reading (mm Hg):	28	Duplicate sample?:	No
Finish time:	1145	Duplicate sample no.:	-
Finish vacuum reading (mm Hg):	7		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	-		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Barom. Press. — 29.5 PID = Ø

Temp. — 79

Wind from SE

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-04 Date: 4/01/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL5 ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	0850
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1145
Canister No.:	45679	Purge finish time:	1400
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1053	Sample no.:	SVP-4-SG-040103
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	No
Finish time:	1138	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.0		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.55 PID =  $\emptyset$   
Temp = 70°C  
Wind = from SW

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-5

Date: 4/1/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant

Sauget, IL

Samplers: KLIML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3456
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	0926
Canister No.:	12003	Purge finish time:	1141
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	0837	Sample no.:	SVP-5-SG-040 103
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	N
Finish time:	0922	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	Yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.55

PID = Ø

temp = 66°C

Wind from SW

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-6 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: M. Donzella

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3546
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1530
Canister No.:	945	Purge finish time:	1745
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1443	Sample no.:	SVP-6
Start vacuum reading (mm Hg):	29	Duplicate sample?:	No
Finish time:	1528	Duplicate sample no.:	-
Finish vacuum reading (mm Hg):	9		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	-		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Wind from SE

Barometric Pressure - 29.65

Temp - 65

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-8 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Samplers: ML/KL Sauget, IL

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3175
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1200
Canister No.:	1052	Purge finish time:	1415
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1110	Sample no.:	SVP-8-56-B33103
Start vacuum reading (mm Hg):	29.0	Duplicate sample?:	No
Finish time:	1159	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.0		
Tracer used?:	Y		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.8 P10 = 0.227  
 Temp = 61.0  
 W = SE



# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-9 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3181
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1550
Canister No.:	433	Purge finish time:	1805
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1457	Sample no.:	SVP-9
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	—
Finish time:	1542	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	Yes		
Duplicate sample?:	—		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.65 PID = Ø  
Temp = 60°F  
Wind from South

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-10 / SVP-100 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3187 / 0283 <sup>Def.</sup>
Purge rate (cc/min):	200	Purge rate (cc/min):	75
Purge duration (min):	2	Target purge duration (min)	<del>2</del> 270
Purge volume (cc):		Purge start time:	1421
Canister No.:	9201	Purge finish time:	1851
Flow restrictor (min):	60	Actual purge duration (min):	270
Start time:	1312	Sample no.:	SVP-10
Start vacuum reading (mm Hg):	30/29	Duplicate sample?:	Yes
Finish time:	1412	Duplicate sample no.:	SVP-100
Finish vacuum reading (mm Hg):	8 / 9		
Tracer used?:	Yes		
Duplicate sample?:	Yes		
Duplicate canister no.:	33989		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP: 29.7

PID = Ø

Temp = 65°C

Wind = from SE

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-11 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: M. Donzella

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3534
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1550
Canister No.:	31147	Purge finish time:	1805
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1503	Sample no.:	SVP-11
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	No
Finish time:	1548	Duplicate sample no.:	-
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	-		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Wind from SE

Barometric Pressure - 29.65

Temp - 65

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-12

Date: 3/31/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: M. Donzella

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	0899
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1043
Canister No.:	6993	Purge finish time:	1258
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	9:56	Sample no.:	SVP-12
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	No
Finish time:	1041	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	Yes		
Duplicate sample?:	No		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Barometric pressure - 29.8

Temp - 58

Wind from SE

Strong sulfur odor  
in the air

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-14 Date: 4/1/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: M. Donzella

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	0899	Pump No.:	3187 / 344
Purge rate (cc/min):	200	Purge rate (cc/min):	75
Purge duration (min):	2	Target purge duration (min)	270
Purge volume (cc):		Purge start time:	919
Canister No.:	9563	Purge finish time:	1349
Flow restrictor (min):	60	Actual purge duration (min):	270
Start time:	816	Sample no.:	SVP-14
Start vacuum reading (mm Hg):	29 / 26	Duplicate sample?:	Yes
Finish time:	916	Duplicate sample no.:	SVP-140
Finish vacuum reading (mm Hg):	8.5 / 4		
Tracer used?:	Yes		
Duplicate sample?:	Yes		
Duplicate canister no.:	20935		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Barom. Press. — 29.5 PID = Ø  
 Temp. — 65  
 Wind from SE

# Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-15 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Samplers: KL & ML Sauget, IL

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3546 <del>3175</del>
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1149
Canister No.:	20997	Purge finish time:	1404
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1100	Sample no.:	SVP-15-SG-033703
Start vacuum reading (mm Hg):	29.0	Duplicate sample?:	N
Finish time:	1145	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	9.0		
Tracer used?:	Yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Wind from SE  
temp = 60°F  
barometric pressure = 29.80

## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-16 Date: 3/31/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Samplers: KL, ML, MD, DR Sauget, IL

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3534
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1022
Canister No.:	1621	Purge finish time:	1237
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	0937	Sample no.:	SVP-16-56-033103
Start vacuum reading (mm Hg):	29.0	Duplicate sample?:	N
Finish time:	1022	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.5	Barometric pressure: 29.8 temp. 58°F	
Tracer used?:	Yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Wind from SE

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## Soil Vapor Sampling Field Form

Vapor Probe No.: SVP-17 Date: 4/1/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant

Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	3181
Purge rate (cc/min):	200	Purge rate (cc/min):	150
Purge duration (min):	2	Target purge duration (min)	135
Purge volume (cc):		Purge start time:	0952
Canister No.:	<del>14015</del> R-5 <del>10-1744</del>	Purge finish time:	1207
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	<del>0825</del> 0900	Sample no.:	SVP-17-SG-040103
Start vacuum reading (mm Hg):	29 31	Duplicate sample?:	N
Finish time:	<del>0910</del> 0950 <del>0945</del>	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	9	<p>* Canister lost pressure after 30 min. Replace w/ new canister &amp; collect for 45 min again</p>	
Tracer used?:	yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP: 29.5 PID: Ø

Temp: 66°C

Wind from SW



# Soil Vapor Sampling Field Form: Probe# \_\_\_\_\_

Sample No.: SVP-18-41040203

Date: 4/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	
Purge rate (cc/min):	200	Purge rate (cc/min):	
Purge duration (min):	5	Target purge duration (min)	
Purge volume (cc):		Purge start time:	
Canister No.:	9583	Purge finish time:	
Flow restrictor (min):	45	Actual purge duration (min):	
Start time:	0901	Sample no.:	
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	
Finish time:	0946	Duplicate sample no.:	
Finish vacuum reading (mm Hg):	8.0		
Tracer used?:	Yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.55 PID = 0.9  
temp = 63° probe depth = 6'  
Wind = from south

Soil Vapor Sampling Field Form: Probe# 8VP-19

Sample No.: 8VP-19-86-040283

Date: 4/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL 5 ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	<del>Pump No.:</del>	<del></del>
Purge rate (cc/min):	200	<del>Purge rate (cc/min):</del>	<del></del>
Purge duration (min):	5	<del>Target purge duration (min)</del>	<del></del>
Purge volume (cc):		<del>Purge start time:</del>	<del></del>
Canister No.:	21211	<del>Purge finish time:</del>	<del></del>
Flow restrictor (min):	45	<del>Actual purge duration (min):</del>	<del></del>
Start time:	1025	<del>Sample no.:</del>	<del></del>
Start vacuum reading (mm Hg):	28.5	<del>Duplicate sample?:</del>	<del></del>
Finish time:	1110	<del>Duplicate sample no.:</del>	<del></del>
Finish vacuum reading (mm Hg):	(K) <del>11.0</del> 8.0		
Tracer used?:	Yes		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

BP: 29.55

PID = 0

Temp: 68

Probe to 6'

Wind from South

# Soil Vapor Sampling Field Form: Probe# 8VP-20

Sample No.: 8VP-20-Sk-040203

Date: 4/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	
Purge rate (cc/min):	200	Purge rate (cc/min):	
Purge duration (min):	5	Target purge duration (min)	
Purge volume (cc):		Purge start time:	
Canister No.:	9916	Purge finish time:	
Flow restrictor (min):	45	Actual purge duration (min):	
Start time:	1054	Sample no.:	
Start vacuum reading (mm Hg):	29.0	Duplicate sample?:	
Finish time:	1139	Duplicate sample no.:	
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	Y		
Duplicate sample?:	N		
Duplicate canister no.:	-		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.55

P10 = Ø

Temp = 71

Probe to 6'

Wind from South

Soil Vapor Sampling Field Form: Probe# SVP-21-54

Sample No.: SVP-21-54-040203

Date: 2/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	
Purge rate (cc/min):	200	Purge rate (cc/min):	
Purge duration (min):	5	Target purge duration (min)	
Purge volume (cc):		Purge start time:	
Canister No.:	13658	Purge finish time:	
Flow restrictor (min):	45	Actual purge duration (min):	
Start time:	1223	Sample no.:	
Start vacuum reading (mm Hg):	29.0	Duplicate sample?:	
Finish time:	1308	Duplicate sample no.:	
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	YES		
Duplicate sample?:	N		
Duplicate canister no.:	-		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

Temp = 71°F

PID = 08

BP = 29.55

Probe to 6'

Wind from South

Soil Vapor Sampling Field Form: Probe# SVP-22

Sample No.: SVP-22-SG-040203

Date: 4/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	3579	Pump No.:	
Purge rate (cc/min):	200	Purge rate (cc/min):	
Purge duration (min):	5	Target purge duration (min)	
Purge volume (cc):		Purge start time:	
Canister No.:	33871	Purge finish time:	
Flow restrictor (min):	45	Actual purge duration (min):	
Start time:	1304	Sample no.:	
Start vacuum reading (mm Hg):	28	Duplicate sample?:	
Finish time:	1349	Duplicate sample no.:	
Finish vacuum reading (mm Hg):	8		
Tracer used?:	YES		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.55      PD = 0  
Temp = 71      Probe to 6'  
Wind from SE

Soil Vapor Sampling Field Form: Probe# SVP-23 (Ambient Air)

Sample No.: SVP-23-89-040203

Date: 4/2/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	<del>XXXX</del>	Pump No.:	<del>XXXX</del>
Purge rate (cc/min):	<del>XXXX</del>	Purge rate (cc/min):	<del>XXXX</del>
Purge duration (min):	<del>XXXX</del>	Target purge duration (min)	<del>XXXX</del>
Purge volume (cc):	<del>XXXX</del>	Purge start time:	<del>XXXX</del>
Canister No.:	14889	Purge finish time:	<del>XXXX</del>
Flow restrictor (min):	45	Actual purge duration (min):	<del>XXXX</del>
Start time:	1218	Sample no.:	<del>XXXX</del>
Start vacuum reading (mm Hg):	29.5	Duplicate sample?:	<del>XXXX</del>
Finish time:	1303	Duplicate sample no.:	<del>XXXX</del>
Finish vacuum reading (mm Hg):	9		
Tracer used?:	N		
Duplicate sample?:	N		
Duplicate canister no.:	—		

Notes (ambient temperature, barometric pressure reading and time, modifications to sample train, etc.):

Temp = 71°F      P.D. = 9

BP = 29.55

Wind from S

# Soil Vapor Sampling Field Form

033103

Vapor Probe No.: BACKGROUND SAMPLE

Date: 3/31/03

Client: Solutia, Inc.

Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.	—	Pump No.:	3850
Purge rate (cc/min):	—	Purge rate (cc/min):	150
Purge duration (min):	—	Target purge duration (min)	135
Purge volume (cc):	—	Purge start time:	1552
Canister No.:	9947	Purge finish time:	1807
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1502	Sample no.:	Background Sample 033103
Start vacuum reading (mm Hg):	28	Duplicate sample?:	—
Finish time:	1547	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	7.5		
Tracer used?:	Yes		
Duplicate sample?:	—		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

Temp = 60°F

PID = Ø

BP = 29.65

Wind from S

## Soil Vapor Sampling Field Form

Vapor Probe No.: Background air sample 040103-AM Date: 9/1/03

Client: Solutia, Inc. Site Location: W.G. Krummrich Plant  
Sauget, IL

Samplers: KL & ML

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.		Pump No.:	8850
Purge rate (cc/min):		Purge rate (cc/min):	150
Purge duration (min):		Target purge duration (min)	135
Purge volume (cc):		Purge start time:	0909
Canister No.:	425	Purge finish time:	1124
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	0823	Sample no.:	Background air sample 040103-AM
Start vacuum reading (mm Hg):	28.5	Duplicate sample?:	—
Finish time:	0908	Duplicate sample no.:	—
Finish vacuum reading (mm Hg):	8.0		
Tracer used?:	N		
Duplicate sample?:	—		
Duplicate canister no.:	—		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

BP = 29.5 PID = Ø  
temp = 66°F  
Wind = from SW



## Soil Vapor Sampling Field Form

240103-PM

Vapor Probe No.: background air sample Date: 4/1/03

Client: Solutia, Inc. Site Location: W.G. Krummerich Plant  
Sauget, IL

Samplers: \_\_\_\_\_

Volatile Organic Compound Sampling		SemiVolatile Organic Compound Sampling	
Pump No.		Pump No.:	3181
Purge rate (cc/min):		Purge rate (cc/min):	150
Purge duration (min):		Target purge duration (min)	135
Purge volume (cc):		Purge start time:	1246
Canister No.:	31151	Purge finish time:	1501
Flow restrictor (min):	45	Actual purge duration (min):	135
Start time:	1242	Sample no.:	
Start vacuum reading (mm Hg):	29	Duplicate sample?:	N
Finish time:	1327	Duplicate sample no.:	/
Finish vacuum reading (mm Hg):	8.5		
Tracer used?:	N		
Duplicate sample?:	N		
Duplicate canister no.:	/		

Notes (barometric pressure reading and time, modifications to sample train, etc.):

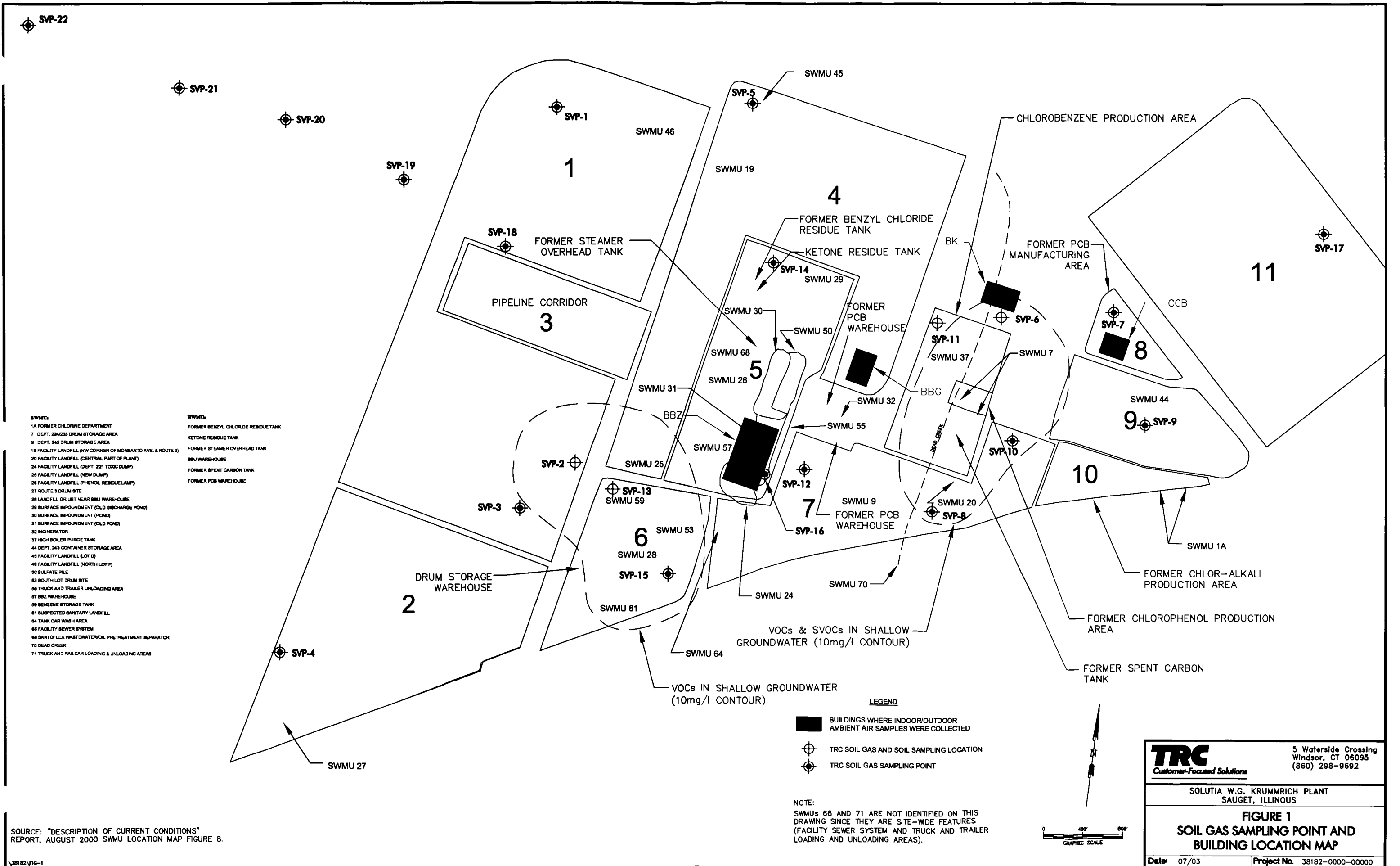
BP = 29.5 PID = 0

temp = 72

Wind = from S

# **Attachment B**

## **Soil Gas Sampling Point and Building Location Map**



**Attachment C**  
**Laboratory Reports**



**AIR TOXICS LTD.**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

TO-15

### **Air Toxics Ltd. Introduces the Electronic Report**

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 8:00 A.M to 6:00 P.M. Pacific**

**E-mail to: [samplereceiving@airtoxics.com](mailto:samplereceiving@airtoxics.com)**



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0304090**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia/Sauget
<b>DATE RECEIVED:</b>	4/3/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/15/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	SVP-18-SG-040203	Modified TO-15/TIC	9.5 "Hg
02A	SVP-19-SG-040203	Modified TO-15/TIC	9.0 "Hg
03A	SVP-20-SG-040203	Modified TO-15/TIC	9.5 "Hg
04A	SVP-21-SG-040203	Modified TO-15/TIC	9.5 "Hg
05A	SVP-22-SG-040203	Modified TO-15/TIC	9.0 "Hg
06A	SVP-23-SG-040203	Modified TO-15/TIC	9.5 "Hg
06AA	SVP-23-SG-040203 Duplicate	Modified TO-15/TIC	9.5 "Hg
07A	Lab Blank	Modified TO-15/TIC	NA
08A	CCV	Modified TO-15/TIC	NA
09A	LCS	Modified TO-15/TIC	NA

CERTIFIED BY:

Laboratory Director

DATE: 04/15/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**TRC Environmental Corporation**  
**Workorder# 0304090**

Six 6 Liter Summa Canister samples were received on April 03, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
BFB acceptance criteria	CLP protocol	SW-846 protocol
Concentration of IS spike	10 ppbv	25 ppbv when 0.5/2.0 ppbv is used for the reporting limit
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	30% Difference	30% Difference with two allowed out up to 40%.
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

By specific client request, Tetrafluoroethane was reported as a tentatively identified compound (TIC) to assist in evaluation of the client sampling system.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



# AIR TOXICS LTD.

SAMPLE NAME: SVP-18-SG-040203

ID#: 0304090-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040324	Date of Collection:	4/2/03
Dil. Factor:	1.96	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	Not Detected	Not Detected
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	6.3	15
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	8.4	25
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	9.6

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-19-SG-040203

ID#: 0304090-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>d040325</b>	<b>Date of Collection:</b> 4/2/03
<b>Dil. Factor:</b>	<b>1.91</b>	<b>Date of Analysis:</b> 4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	5.6	13
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	11	33
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-20-SG-040203

ID#: 0304090-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040326	Date of Collection:	4/2/03
Dil. Factor:	1.96	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	Not Detected	Not Detected
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	4.2	10
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	5.5	16
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-21-SG-040203

ID#: 0304090-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040327	Date of Collection:	4/2/03
Dil. Factor:	1.96	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	Not Detected	Not Detected
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	12	28
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	Not Detected	Not Detected
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-22-SG-040203

ID#: 0304090-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040328	Date of Collection:	4/2/03
Dil. Factor:	1.91	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	9.0	22
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	8.0	24
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-23-SG-040203

ID#: 0304090-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040329	Date of Collection:	4/2/03
Dil. Factor:	1.96	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	7.6	27
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	19	46
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	Not Detected	Not Detected
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	10

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-23-SG-040203 Duplicate

ID#: 0304090-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040430	Date of Collection:	4/2/03
Dil. Factor:	1.96	Date of Analysis:	4/4/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	7.3	26
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	18	44
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	Not Detected	Not Detected
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	8.5

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304090-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130



# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304090-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/3/03

Compound	%Recovery
Vinyl Chloride	87
Methylene Chloride	84
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	88
Chloroform	88
1,1,1-Trichloroethane	91
Benzene	88
1,2-Dichloroethane	88
Trichloroethene	88
Tetrachloroethene	92
Chlorobenzene	90
alpha-Chlorotoluene	85
Acetone	94
Carbon Disulfide	89
trans-1,2-Dichloroethene	89
2-Butanone (Methyl Ethyl Ketone)	92
Bromodichloromethane	96
4-Methyl-2-pentanone	96
Bromoform	99
tert-Butylbenzene	108
Naphthalene	91
1,2-Dichlorobenzene	85
1,4-Dichlorobenzene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304090-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/3/03

Compound	%Recovery
Vinyl Chloride	90
Methylene Chloride	80
1,1-Dichloroethane	75
cis-1,2-Dichloroethene	85
Chloroform	82
1,1,1-Trichloroethane	83
Benzene	90
1,2-Dichloroethane	86
Trichloroethene	89
Tetrachloroethene	90
Chlorobenzene	86
alpha-Chlorotoluene	95
Acetone	88
Carbon Disulfide	86
trans-1,2-Dichloroethene	91
2-Butanone (Methyl Ethyl Ketone)	86
Bromodichloromethane	84
4-Methyl-2-pentanone	87
Bromoform	82
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	83
1,4-Dichlorobenzene	81

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



# CHAIN-OF-CUSTODY RECORD

## Sample Transportation Notice

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FOLSOM, CA 95630-4719  
(916) 985-1000 FAX: (916) 985-1020

Page 1 of 1

Contact Person <u>MIKE SUSCA</u> Company <u>TRC Environmental</u> Address <u>Switzerland Avenue</u> City <u>Windsor</u> State <u>CA</u> Zip <u>92095</u> Phone <u>(916) 298-6234</u> FAX <u>(916) 298-6399</u> Collected By: Signature <u>Kath Lennart</u>			Project info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solutra/Sunco</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>See notes</u> Specify _____	
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Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
01A	<del>01A</del> SVP-18-SG-040203	4/2/03 - 0946	TD-15 Relinquished by primary submitted	28.5	8.0	9.5" Hg
02A	<del>02A</del> SVP-19-SG-040203	4/2/03 - 1110	TD-15 " "	28.5	8.0	9.0" Hg
03A	<del>03A</del> SVP-20-SG-040203	4/2/03 - 1139	TD-15 " "	29.0	8.5	9.5" Hg
04A	<del>04A</del> SVP-21-SG-040203	4/2/03 - 1308	TD-15 " "	29.0	8.5	9.5" Hg

Relinquished By: (Signature) <u>Kath Lennart</u> Date/Time <u>4/2/03 1430</u>		Received By: (Signature) _____ Date/Time _____		Notes: 48 hr TAT on analysis Standard TAT on report (include complete data validation package)
Relinquished By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____		
Relinquished By: (Signature) _____ Date/Time _____		Received By: (Signature) <u>Emy Bader</u> Date/Time <u>4/3/03 935</u>		

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (C)	Condition	Canister Seals Intact?	Work Order #
	FedEx	8369 8665 1787	TB	—	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	0304090



# CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CA</u> Zip <u>94095</u> Phone <u>(800) 298-6234</u> FAX <u>(800) 298-6399</u> Collected By: Signature <u>Kate Lammert</u>			Project info: P.O. # _____ Project # <u>38182</u> Project Name <u>Slutsky/Sausage</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>See notes</u> Specify _____	
--	--	--	--	--	--	--

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
05A	SVP-22-SG-040203	4/2/03 - 1349	TD-15 - refer to analysis list previously submitted	29.0	8.0	9.0
06A	SVP-23-SG-040203	4/2/03 - 1303	TD-15 - " "	29.5	9.0	9.5

Relinquished By: (Signature) Date/Time <u>Kate Lammert</u> 4/2/03 1435		Received By: (Signature) Date/Time <u>James Thomas</u> 4/3/03 920		Notes: <u>48hr TAT on analysis</u> <u>Standard TAT on report</u> <u>(include data validation package)</u>
Relinquished By: (Signature) Date/Time		Received By: (Signature) Date/Time		
Relinquished By: (Signature) Date/Time		Received By: (Signature) Date/Time		

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>FedEx</u>	<u>9369 8665 1782</u>	<u>JA</u>	<u>-</u>	<u>Good</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	<u>0304090</u>



# **AIR TOXICS LTD.**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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## **Air Toxics Ltd. Introduces the Electronic Report**

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 8:00 A.M to 6:00 P.M. Pacific**

**E-mail to: [samplereceiving@airtoxics.com](mailto:samplereceiving@airtoxics.com)**



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0304034**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia/Sauget
<b>DATE RECEIVED:</b>	4/2/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/15/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	SVP-5-SG-040103	Modified TO-15/TIC	8.5 "Hg
02A	SVP-14-SG-040103	Modified TO-15/TIC	9.5 "Hg
03A	SVP-17-SG-040103	Modified TO-15/TIC	7.5 "Hg
04A	SVP-140-SG-040103	Modified TO-15/TIC	9.0 "Hg
05A	SVP-1-SG-040103	Modified TO-15/TIC	9.5 "Hg
06A	SVP-2-SG-040103	Modified TO-15/TIC	9.5 "Hg
07A	SVP-3-SG-040103	Modified TO-15/TIC	9.0 "Hg
08A	SVP-4-SG-040103	Modified TO-15/TIC	9.0 "Hg
08AA	SVP-4-SG-040103 Duplicate	Modified TO-15/TIC	9.0 "Hg
09A	Background Air Sample-040103-AM	Modified TO-15/TIC	9.0 "Hg
10A	Background Air Sample-040103-PM	Modified TO-15/TIC	7.0 "Hg
11A	Trip Blank 040103	Modified TO-15/TIC	29.0 "Hg
12A	Lab Blank	Modified TO-15/TIC	NA
12B	Lab Blank	Modified TO-15/TIC	NA
12C	Lab Blank	Modified TO-15/TIC	NA
13A	CCV	Modified TO-15/TIC	NA
13B	CCV	Modified TO-15/TIC	NA
13C	CCV	Modified TO-15/TIC	NA
14A	LCS	Modified TO-15/TIC	NA
14B	LCS	Modified TO-15/TIC	NA

Continued on next page



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0304034**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia/Sauget
<b>DATE RECEIVED:</b>	4/2/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/15/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT</u> <u>VAC./PRES.</u>
14C	LCS	Modified TO-15/TIC	NA

CERTIFIED BY:

Laboratory Director

DATE: 04/15/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**TRC Environmental Corporation**  
**Workorder# 0304034**

Eleven 6 Liter Summa Canister samples were received on April 02, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
BFB acceptance criteria	CLP protocol	SW-846 protocol
Concentration of IS spike	10 ppbv	25 ppbv when 0.5/2.0 ppbv is used for the reporting limit
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	30% Difference	30% Difference with two allowed out up to 40%.
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

**Receiving Notes**

The chain of custody information for sample SVP-2-SG-040103 did not match the entry on the sample tag. The discrepancy was noted in the Login email and the information on the chain of custody was used to process and report the sample.

**Analytical Notes**

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

The following compound, alpha-Chlorotoluene, indicated low bias (less than 70% expected recovery) in the daily CCV analyzed on MSD-B on 04/02/03. Associated non-detects in samples SVP-14-SG-040103, SVP-140-SG-040103, Background Air Sample-040103-AM, Background Air Sample-040103-PM and Trip Blank 040103 were flagged to indicate estimated results with low bias.

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.



By specific client request, Tetrafluoroethane was reported as a tentatively identified compound (TIC) to assist in evaluation of the client sampling system.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# AIR TOXICS LTD.

SAMPLE NAME: SVP-5-SG-040103

ID#: 0304034-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040217	Date of Collection:	4/1/03
Dil. Factor:	1.87	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.94	2.4	Not Detected	Not Detected
Methylene Chloride	0.94	3.3	Not Detected	Not Detected
1,1-Dichloroethane	0.94	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Chloroform	0.94	4.6	Not Detected	Not Detected
1,1,1-Trichloroethane	0.94	5.2	Not Detected	Not Detected
Benzene	0.94	3.0	Not Detected	Not Detected
1,2-Dichloroethane	0.94	3.8	Not Detected	Not Detected
Trichloroethene	0.94	5.1	Not Detected	Not Detected
Tetrachloroethene	0.94	6.4	Not Detected	Not Detected
Chlorobenzene	0.94	4.4	Not Detected	Not Detected
alpha-Chlorotoluene	0.94	4.9	Not Detected	Not Detected
Acetone	3.7	9.0	Not Detected	Not Detected
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	16	Not Detected	Not Detected
Bromoform	3.7	39	Not Detected	Not Detected
tert-Butylbenzene	3.7	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected
1,4-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-14-SG-040103

ID#: 0304034-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040224	Date of Collection:	4/1/03
Dil. Factor:	784	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	390	1000	Not Detected	Not Detected
Methylene Chloride	390	1400	Not Detected	Not Detected
1,1-Dichloroethane	390	1600	Not Detected	Not Detected
cis-1,2-Dichloroethene	390	1600	Not Detected	Not Detected
Chloroform	390	1900	Not Detected	Not Detected
1,1,1-Trichloroethane	390	2200	Not Detected	Not Detected
Benzene	390	1300	1100	3700
1,2-Dichloroethane	390	1600	Not Detected	Not Detected
Trichloroethene	390	2100	Not Detected	Not Detected
Tetrachloroethene	390	2700	Not Detected	Not Detected
Chlorobenzene	390	1800	2200	10000
alpha-Chlorotoluene	390	2100	Not Detected U J	Not Detected U J
Acetone	1600	3800	Not Detected	Not Detected
Carbon Disulfide	1600	5000	Not Detected	Not Detected
trans-1,2-Dichloroethene	1600	6300	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1600	4700	Not Detected	Not Detected
Bromodichloromethane	1600	11000	Not Detected	Not Detected
4-Methyl-2-pentanone	1600	6500	72000	300000
Bromoform	1600	16000	Not Detected	Not Detected
tert-Butylbenzene	1600	8700	Not Detected	Not Detected
Naphthalene	7800	42000	Not Detected	Not Detected
1,2-Dichlorobenzene	390	2400	Not Detected	Not Detected
1,4-Dichlorobenzene	390	2400	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	85	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-17-SG-040103

ID#: 0304034-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040322	Date of Collection:	4/1/03
Dil. Factor:	1.79	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.90	2.3	Not Detected	Not Detected
Methylene Chloride	0.90	3.2	Not Detected	Not Detected
1,1-Dichloroethane	0.90	3.7	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.90	3.6	Not Detected	Not Detected
Chloroform	0.90	4.4	Not Detected	Not Detected
1,1,1-Trichloroethane	0.90	5.0	Not Detected	Not Detected
Benzene	0.90	2.9	3.5	11
1,2-Dichloroethane	0.90	3.7	Not Detected	Not Detected
Trichloroethene	0.90	4.9	Not Detected	Not Detected
Tetrachloroethene	0.90	6.2	Not Detected	Not Detected
Chlorobenzene	0.90	4.2	Not Detected	Not Detected
alpha-Chlorotoluene	0.90	4.7	Not Detected	Not Detected
Acetone	3.6	8.6	11	26
Carbon Disulfide	3.6	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.6	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	11	Not Detected	Not Detected
Bromodichloromethane	3.6	24	Not Detected	Not Detected
4-Methyl-2-pentanone	3.6	15	Not Detected	Not Detected
Bromoform	3.6	38	Not Detected	Not Detected
tert-Butylbenzene	3.6	20	Not Detected	Not Detected
Naphthalene	18	95	Not Detected	Not Detected
1,2-Dichlorobenzene	0.90	5.5	Not Detected	Not Detected
1,4-Dichlorobenzene	0.90	5.5	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	150

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-140-SG-040103

ID#: 0304034-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040225	Date of Collection:	4/1/03
Dil Factor:	764	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	380	990	Not Detected	Not Detected
Methylene Chloride	380	1300	Not Detected	Not Detected
1,1-Dichloroethane	380	1600	Not Detected	Not Detected
cis-1,2-Dichloroethene	380	1500	Not Detected	Not Detected
Chloroform	380	1900	Not Detected	Not Detected
1,1,1-Trichloroethane	380	2100	Not Detected	Not Detected
Benzene	380	1200	1100	3700
1,2-Dichloroethane	380	1600	Not Detected	Not Detected
Trichloroethene	380	2100	Not Detected	Not Detected
Tetrachloroethene	380	2600	Not Detected	Not Detected
Chlorobenzene	380	1800	2300	11000
alpha-Chlorotoluene	380	2000	Not Detected U J	Not Detected U J
Acetone	1500	3700	Not Detected	Not Detected
Carbon Disulfide	1500	4800	Not Detected	Not Detected
trans-1,2-Dichloroethene	1500	6200	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1500	4600	Not Detected	Not Detected
Bromodichloromethane	1500	10000	Not Detected	Not Detected
4-Methyl-2-pentanone	1500	6400	75000	310000
Bromoform	1500	16000	Not Detected	Not Detected
tert-Butylbenzene	1500	8500	Not Detected	Not Detected
Naphthalene	7600	41000	Not Detected	Not Detected
1,2-Dichlorobenzene	380	2300	Not Detected	Not Detected
1,4-Dichlorobenzene	380	2300	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	86	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-1-SG-040103

ID#: 0304034-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040323	Date of Collection:	4/1/03
Dil. Factor:	1.96	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	Not Detected	Not Detected
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	Not Detected	Not Detected
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	7.6	18
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	Not Detected	Not Detected
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-2-SG-040103

ID#: 0304034-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040220	Date of Collection:	4/1/03
Dil. Factor:	1.96	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.98	2.5	Not Detected	Not Detected
Methylene Chloride	0.98	3.5	Not Detected	Not Detected
1,1-Dichloroethane	0.98	4.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.98	3.9	Not Detected	Not Detected
Chloroform	0.98	4.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.98	5.4	Not Detected	Not Detected
Benzene	0.98	3.2	1.0	3.3
1,2-Dichloroethane	0.98	4.0	Not Detected	Not Detected
Trichloroethene	0.98	5.4	Not Detected	Not Detected
Tetrachloroethene	0.98	6.8	Not Detected	Not Detected
Chlorobenzene	0.98	4.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.98	5.2	Not Detected	Not Detected
Acetone	3.9	9.5	Not Detected	Not Detected
Carbon Disulfide	3.9	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.9	16	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	12	Not Detected	Not Detected
Bromodichloromethane	3.9	27	Not Detected	Not Detected
4-Methyl-2-pentanone	3.9	16	Not Detected	Not Detected
Bromoform	3.9	41	Not Detected	Not Detected
tert-Butylbenzene	3.9	22	Not Detected	Not Detected
Naphthalene	20	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.98	6.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-3-SG-040103

ID#: 0304034-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040221	Date of Collection:	4/1/03
Dil. Factor:	1.91	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	1.9	13
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	Not Detected	Not Detected
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	2100

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130



# AIR TOXICS LTD.

SAMPLE NAME: SVP-4-SG-040103

ID#: 0304034-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040222	Date of Collection:	4/1/03
Dil. Factor:	1.91	Date of Analysis:	4/2/03

Compound	Rot. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	Not Detected	Not Detected
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-4-SG-040103 Duplicate

ID#: 0304034-08AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040223	Date of Collection:	4/1/03
DIL. Factor:	1.91	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	Not Detected	Not Detected
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Background Air Sample-040103-AM

ID#: 0304034-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040218	Date of Collection:	4/1/03
Dil. Factor:	1.91	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	2.6	12
alpha-Chlorotoluene	0.96	5.0	Not Detected U J	Not Detected U J
Acetone	3.8	9.2	4.7	11
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	1.5	8.9

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Background Air Sample-040103-PM

ID#: 0304034-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	040219	Date of Collection:	4/1/03
Dil Factor:	1.75	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.88	2.3	Not Detected	Not Detected
Methylene Chloride	0.88	3.1	Not Detected	Not Detected
1,1-Dichloroethane	0.88	3.6	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.88	3.5	Not Detected	Not Detected
Chloroform	0.88	4.3	Not Detected	Not Detected
1,1,1-Trichloroethane	0.88	4.8	Not Detected	Not Detected
Benzene	0.88	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.88	3.6	Not Detected	Not Detected
Trichloroethene	0.88	4.8	Not Detected	Not Detected
Tetrachloroethene	0.88	6.0	Not Detected	Not Detected
Chlorobenzene	0.88	4.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.88	4.6	Not Detected U J	Not Detected U J
Acetone	3.5	8.4	4.1	10
Carbon Disulfide	3.5	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.5	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.5	10	Not Detected	Not Detected
Bromodichloromethane	3.5	24	Not Detected	Not Detected
4-Methyl-2-pentanone	3.5	14	Not Detected	Not Detected
Bromoform	3.5	37	Not Detected	Not Detected
tert-Butylbenzene	3.5	20	Not Detected	Not Detected
Naphthalene	18	93	Not Detected	Not Detected
1,2-Dichlorobenzene	0.88	5.3	Not Detected	Not Detected
1,4-Dichlorobenzene	0.88	5.3	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Trip Blank 040103

ID#: 0304034-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040220	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected U J	Not Detected U J
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	83	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304034-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040207	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304034-12B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6040210	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/2/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected U J	Not Detected U J
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304034-12C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/3/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130



# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304034-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6040204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/2/03

Compound	%Recovery
Vinyl Chloride	110
Methylene Chloride	111
1,1-Dichloroethane	117
cis-1,2-Dichloroethene	119
Chloroform	114
1,1,1-Trichloroethane	114
Benzene	109
1,2-Dichloroethane	123
Trichloroethene	115
Tetrachloroethene	121
Chlorobenzene	108
alpha-Chlorotoluene	62 Q
Acetone	95
Carbon Disulfide	82
trans-1,2-Dichloroethene	84
2-Butanone (Methyl Ethyl Ketone)	103
Bromodichloromethane	91
4-Methyl-2-pentanone	106
Bromoform	86
tert-Butylbenzene	81
Naphthalene	82
1,2-Dichlorobenzene	73
1,4-Dichlorobenzene	76

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	85	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304034-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/2/03

Compound	%Recovery
Vinyl Chloride	82
Methylene Chloride	80
1,1-Dichloroethane	83
cis-1,2-Dichloroethene	83
Chloroform	84
1,1,1-Trichloroethane	86
Benzene	82
1,2-Dichloroethane	80
Trichloroethene	82
Tetrachloroethene	80
Chlorobenzene	82
alpha-Chlorotoluene	94
Acetone	92
Carbon Disulfide	88
trans-1,2-Dichloroethene	86
2-Butanone (Methyl Ethyl Ketone)	90
Bromodichloromethane	93
4-Methyl-2-pentanone	92
Bromoform	97
tert-Butylbenzene	117
Naphthalene	95
1,2-Dichlorobenzene	86
1,4-Dichlorobenzene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304034-13C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040302	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/3/03

Compound	%Recovery
Vinyl Chloride	87
Methylene Chloride	84
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	88
Chloroform	88
1,1,1-Trichloroethane	91
Benzene	88
1,2-Dichloroethane	88
Trichloroethene	88
Tetrachloroethene	92
Chlorobenzene	90
alpha-Chlorotoluene	85
Acetone	94
Carbon Disulfide	89
trans-1,2-Dichloroethene	89
2-Butanone (Methyl Ethyl Ketone)	92
Bromodichloromethane	96
4-Methyl-2-pentanone	96
Bromoform	99
tert-Butylbenzene	108
Naphthalene	91
1,2-Dichlorobenzene	85
1,4-Dichlorobenzene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304034-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/2/03

Compound	%Recovery
Vinyl Chloride	120
Methylene Chloride	110
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	119
Chloroform	111
1,1,1-Trichloroethane	110
Benzene	118
1,2-Dichloroethane	127
Trichloroethene	123
Tetrachloroethene	131 Q
Chlorobenzene	110
alpha-Chlorotoluene	76
Acetone	83
Carbon Disulfide	78
trans-1,2-Dichloroethene	84
2-Butanone (Methyl Ethyl Ketone)	91
Bromodichloromethane	80
4-Methyl-2-pentanone	92
Bromoform	64
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	71
1,4-Dichlorobenzene	70

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	85	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304034-14B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/2/03

Compound	%Recovery
Vinyl Chloride	94
Methylene Chloride	82
1,1-Dichloroethane	77
cis-1,2-Dichloroethene	88
Chloroform	84
1,1,1-Trichloroethane	87
Benzene	92
1,2-Dichloroethane	86
Trichloroethene	90
Tetrachloroethene	92
Chlorobenzene	88
alpha-Chlorotoluene	99
Acetone	90
Carbon Disulfide	89
trans-1,2-Dichloroethene	94
2-Butanone (Methyl Ethyl Ketone)	89
Bromodichloromethane	86
4-Methyl-2-pentanone	89
Bromoform	84
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	84
1,4-Dichlorobenzene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304034-14C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040303	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/3/03

Compound	%Recovery
Vinyl Chloride	90
Methylene Chloride	80
1,1-Dichloroethane	75
cis-1,2-Dichloroethene	85
Chloroform	82
1,1,1-Trichloroethane	83
Benzene	90
1,2-Dichloroethane	86
Trichloroethene	89
Tetrachloroethene	90
Chlorobenzene	86
alpha-Chlorotoluene	95
Acetone	88
Carbon Disulfide	86
trans-1,2-Dichloroethene	91
2-Butanone (Methyl Ethyl Ketone)	86
Bromodichloromethane	84
4-Methyl-2-pentanone	87
Bromoform	82
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	83
1,4-Dichlorobenzene	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



## CHAIN-OF-CUSTODY RECORD

### Sample Transportation Notice

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Page 1 of 1

Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6399</u> Collected By: Signature <u>Kate Lannan</u>			Project Info: P.O. # <u>38184</u> Project # <u>28182</u> Project Name <u>Sediment/Samples</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>See NOTES</u> Specify _____  <u>ML 4/2/03</u>	
Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
<u>01A</u>	<u>SVP-5-SG-040103</u>	<u>4/1/03 ~ 0922</u>	<u>TD-15 - Refer to analysis list previously submitted</u>	<u>28.5</u>	<u>8.5</u>	<u>9.5"15</u>
<u>02A</u>	<u>SVP-14-SG-040103</u>	<u>4/1/03 ~ 1349</u>	<u>TD-15 - "</u>	<u>29</u>	<u>8.5</u>	<u>9.5"15</u>
<u>03A</u>	<u>SVP-17-SG-040103</u>	<u>4/1/03 ~ 0950</u>	<u>TD-15 - "</u>	<u>31</u>	<u>9</u>	<u>9.5"15</u>
<u>04A</u>	<u>SVP-140-SG-040103</u>	<u>4/1/03 ~ 1349</u>	<u>TD-15 - "</u>	<u>26</u>	<u>4</u>	<u>9.0"15</u>
Released By: (Signature) Date/Time <u>Kate Lannan 4/1/03 1430</u>			Notes: <u>48 TAT on analysis</u> <u>Standard TAT in report (include data</u> <u>Validation package)</u>			
Retrieved By: (Signature) Date/Time <u>Tony Babel 4/2/03 910 ATL</u>						
Relinquished By: (Signature) Date/Time						
Shipped By: (Signature) Date/Time			Work Order #			
Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seal Intact?
	<u>FedEx</u>	<u>1802462232336</u>	<u>TP</u>	<u>—</u>	<u>Good</u>	<u>Yes</u> No None
						<u>0304031</u>



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LOT 1233 BY H.





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## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CA</u> Zip <u>95695</u> Phone <u>(916) 298-6234</u> FAX <u>(916) 298-6399</u> Collected By: Signature <u>Kate Lunn</u>			Project Info: P.O. # _____ Project # <u>38182</u> Project Name <u>San Jose / San Jose</u>		Turn Around Time: <input checked="" type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>SEE NOTES</u> Specify _____ <u>4/2/03</u>	
Lab ID	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
<u>09A</u>	<u>Background Air Sample - 040103-AM</u>	<u>4/1/03 ~ 0908</u>	<u>TD-15 - Refer to previously submitted analyte list</u>	<u>28.5</u>	<u>8.0</u>	<u>9.10" Hg</u>
<u>10A</u>	<u>Background Air Sample - 4/1/03-PM</u>	<u>4/1/03 ~ 1327</u>	<u>TD-15 "</u>	<u>29</u>	<u>8.5</u>	<u>7.10" Hg</u>
<u>11A</u>	<u>Trip Blank - 040103</u>	<u>4/1/03 ~ 1410</u>	<u>TD-15 "</u>	<u>NA</u>	<u>NA</u>	<u>2.10" Hg</u>
Relinquished By: (Signature) <u>Kate Lunn</u> Date/Time <u>04/03/1440</u> Relinquished By: (Signature) _____ Date/Time _____ Relinquished By: (Signature) _____ Date/Time _____			Received By: (Signature) <u>Tony B. B. B.</u> Date/Time <u>4/2/03 910</u> Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____			
Notes: <u>48 hr. TAT on analysis</u> <u>Standard TAT on report (include data validation package)</u>						
Shipper Name <u>TRC</u> Air Bill # <u>1307462232336</u> Opened By: <u>TRC</u> Temp. (°C) <u>—</u> Condition <u>Good</u> Custody Seal Initialed? <u>Yes</u> No None Work Order # <u>0304034</u>						



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

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- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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**WORK ORDER #: 0304003B**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia
<b>DATE RECEIVED:</b>	4/1/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/11/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
11A	SVP-16-SG-033103	Modified TO-15/TIC	9.0 "Hg
12A	SVP-12-SG-033103	Modified TO-15/TIC	8.5 "Hg
12AA	SVP-12-SG-033103 Duplicate	Modified TO-15/TIC	8.5 "Hg
13A	SVP-15-SG-033103	Modified TO-15/TIC	8.0 "Hg
14A	SVP-8-SG-033103	Modified TO-15/TIC	8.5 "Hg
14AA	SVP-8-SG-033103 Duplicate	Modified TO-15/TIC	8.5 "Hg
15A	SVP-10-SG-033103	Modified TO-15/TIC	8.0 "Hg
16A	SVP-100-SG-033103	Modified TO-15/TIC	7.5 "Hg
17A	SVP-11-SG-033103	Modified TO-15/TIC	9.0 "Hg
18A	SVP-9-SG-033103	Modified TO-15/TIC	8.5 "Hg
19A	SVP-6-SG-033103	Modified TO-15/TIC	9.0 "Hg
20A	SVP-Background Sample-033103	Modified TO-15/TIC	8.0 "Hg
21A	Trip Blank 033103	Modified TO-15/TIC	29.0 "Hg
22A	Lab Blank	Modified TO-15/TIC	NA
22B	Lab Blank	Modified TO-15/TIC	NA
23A	CCV	Modified TO-15/TIC	NA
23B	CCV	Modified TO-15/TIC	NA
24A	LCS	Modified TO-15/TIC	NA
24B	LCS	Modified TO-15/TIC	NA

CERTIFIED BY:

Laboratory Director

DATE: 04/14/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**TRC Environmental Corporation**  
**Workorder# 0304003B**

Eleven 6 Liter Summa Canister samples were received on April 01, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<i><b>Requirement</b></i>	<i><b>TO-15</b></i>	<i><b>ATL Modifications</b></i>
BFB acceptance criteria	CLP protocol	SW-846 protocol
Concentration of IS spike	10 ppbv	25 ppbv when 0.5/2.0 ppbv is used for the reporting limit
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	30% Difference	30% Difference with two allowed out up to 40%.
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

The following compound, alpha-Chlorotoluene, indicated low bias (less than 70% expected recovery) in the daily CCV analyzed on 04-01-2003. Associated non-detects in samples SVP-10-SG-033103, SVP-100-SG-033103, SVP-11-SG-033103, SVP-9-SG-033103, SVP-6-SG-033103, SVP-Background Sample-033103, and Trip Blank 033103 were flagged to indicate estimated results with low bias.

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

By specific client request, Tetrafluoroethane was reported as a tentatively identified compound (TIC) to

assist in evaluation of the client sampling system.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# AIR TOXICS LTD.

SAMPLE NAME: SVP-16-SG-033103

ID#: 0304003B-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040118	Date of Collection:	3/31/03
Dil. Factor:	1.91	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	Not Detected	Not Detected
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected	Not Detected
Acetone	3.8	9.2	Not Detected	Not Detected
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	3.9	16
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-12-SG-033103

ID#: 0304003B-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>d040119</b>	<b>Date of Collection:</b>	<b>3/31/03</b>
<b>Dil. Factor:</b>	<b>1.87</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.94	2.4	Not Detected	Not Detected
Methylene Chloride	0.94	3.3	Not Detected	Not Detected
1,1-Dichloroethane	0.94	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Chloroform	0.94	4.6	Not Detected	Not Detected
1,1,1-Trichloroethane	0.94	5.2	9.8	54
Benzene	0.94	3.0	Not Detected	Not Detected
1,2-Dichloroethane	0.94	3.8	Not Detected	Not Detected
Trichloroethene	0.94	5.1	Not Detected	Not Detected
Tetrachloroethene	0.94	6.4	2.9	20
Chlorobenzene	0.94	4.4	Not Detected	Not Detected
alpha-Chlorotoluene	0.94	4.9	Not Detected	Not Detected
Acetone	3.7	9.0	Not Detected	Not Detected
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	16	Not Detected	Not Detected
Bromoform	3.7	39	Not Detected	Not Detected
tert-Butylbenzene	3.7	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected
1,4-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-12-SG-033103 Duplicate

ID#: 0304003B-12AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040120	Date of Collection:	3/31/03
Dil. Factor:	1.87	Date of Analysis:	4/1/03

Compound	Rot. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.94	2.4	Not Detected	Not Detected
Methylene Chloride	0.94	3.3	Not Detected	Not Detected
1,1-Dichloroethane	0.94	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Chloroform	0.94	4.6	Not Detected	Not Detected
1,1,1-Trichloroethane	0.94	5.2	9.4	52
Benzene	0.94	3.0	Not Detected	Not Detected
1,2-Dichloroethane	0.94	3.8	Not Detected	Not Detected
Trichloroethene	0.94	5.1	Not Detected	Not Detected
Tetrachloroethene	0.94	6.4	2.8	19
Chlorobenzene	0.94	4.4	Not Detected	Not Detected
alpha-Chlorotoluene	0.94	4.9	Not Detected	Not Detected
Acetone	3.7	9.0	Not Detected	Not Detected
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	16	Not Detected	Not Detected
Bromoform	3.7	39	Not Detected	Not Detected
tert-Butylbenzene	3.7	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected
1,4-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130



# AIR TOXICS LTD.

SAMPLE NAME: SVP-15-SG-033103

ID#: 0304003B-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>d040123</b>	<b>Date of Collection:</b>	<b>3/31/03</b>
<b>Dil. Factor:</b>	<b>1.83</b>	<b>Date of Analysis:</b>	<b>4/2/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.92	2.4	Not Detected	Not Detected
Methylene Chloride	0.92	3.2	Not Detected	Not Detected
1,1-Dichloroethane	0.92	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Chloroform	0.92	4.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.92	5.1	Not Detected	Not Detected
Benzene	0.92	3.0	Not Detected	Not Detected
1,2-Dichloroethane	0.92	3.8	Not Detected	Not Detected
Trichloroethene	0.92	5.0	Not Detected	Not Detected
Tetrachloroethene	0.92	6.3	Not Detected	Not Detected
Chlorobenzene	0.92	4.3	20	94
alpha-Chlorotoluene	0.92	4.8	Not Detected	Not Detected
Acetone	3.7	8.8	Not Detected	Not Detected
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	15	7.8	32
Bromoform	3.7	38	Not Detected	Not Detected
tert-Butylbenzene	3.7	20	Not Detected	Not Detected
Naphthalene	18	97	Not Detected	Not Detected
1,2-Dichlorobenzene	0.92	5.6	8.2	50
1,4-Dichlorobenzene	0.92	5.6	3.2	20

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-8-SG-033103

ID#: 0304003B-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040121	Date of Collection:	3/31/03
Dil. Factor:	1.87	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.94	2.4	Not Detected	Not Detected
Methylene Chloride	0.94	3.3	Not Detected	Not Detected
1,1-Dichloroethane	0.94	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Chloroform	0.94	4.6	11	53
1,1,1-Trichloroethane	0.94	5.2	Not Detected	Not Detected
Benzene	0.94	3.0	1.5	5.0
1,2-Dichloroethane	0.94	3.8	Not Detected	Not Detected
Trichloroethene	0.94	5.1	Not Detected	Not Detected
Tetrachloroethene	0.94	6.4	1.1	7.6
Chlorobenzene	0.94	4.4	Not Detected	Not Detected
alpha-Chlorotoluene	0.94	4.9	Not Detected	Not Detected
Acetone	3.7	9.0	11	28
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	16	Not Detected	Not Detected
Bromoform	3.7	39	Not Detected	Not Detected
tert-Butylbenzene	3.7	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected
1,4-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-8-SG-033103 Duplicate

ID#: 0304003B-14AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040122	Date of Collection:	3/31/03
Dil. Factor:	1.87	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.94	2.4	Not Detected	Not Detected
Methylene Chloride	0.94	3.3	Not Detected	Not Detected
1,1-Dichloroethane	0.94	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Chloroform	0.94	4.6	11	55
1,1,1-Trichloroethane	0.94	5.2	Not Detected	Not Detected
Benzene	0.94	3.0	1.6	5.1
1,2-Dichloroethane	0.94	3.8	Not Detected	Not Detected
Trichloroethene	0.94	5.1	Not Detected	Not Detected
Tetrachloroethene	0.94	6.4	1.1	7.8
Chlorobenzene	0.94	4.4	Not Detected	Not Detected
alpha-Chlorotoluene	0.94	4.9	Not Detected	Not Detected
Acetone	3.7	9.0	12	28
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	16	Not Detected	Not Detected
Bromoform	3.7	39	Not Detected	Not Detected
tert-Butylbenzene	3.7	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected
1,4-Dichlorobenzene	0.94	5.7	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-10-SG-033103

ID#: 0304003B-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040115	Date of Collection:	3/31/03
Dil. Factor:	366	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	180	480	Not Detected	Not Detected
Methylene Chloride	180	650	Not Detected	Not Detected
1,1-Dichloroethane	180	750	Not Detected	Not Detected
cis-1,2-Dichloroethene	180	740	Not Detected	Not Detected
Chloroform	180	910	Not Detected	Not Detected
1,1,1-Trichloroethane	180	1000	Not Detected	Not Detected
Benzene	180	590	680	2200
1,2-Dichloroethane	180	750	Not Detected	Not Detected
Trichloroethene	180	1000	Not Detected	Not Detected
Tetrachloroethene	180	1300	Not Detected	Not Detected
Chlorobenzene	180	860	31000	140000
alpha-Chlorotoluene	180	960	Not Detected U J	Not Detected U J
Acetone	730	1800	Not Detected	Not Detected
Carbon Disulfide	730	2300	Not Detected	Not Detected
trans-1,2-Dichloroethene	730	2900	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	730	2200	Not Detected	Not Detected
Bromodichloromethane	730	5000	Not Detected	Not Detected
4-Methyl-2-pentanone	730	3000	Not Detected	Not Detected
Bromoform	730	7700	Not Detected	Not Detected
tert-Butylbenzene	730	4100	Not Detected	Not Detected
Naphthalene	3700	19000	Not Detected	Not Detected
1,2-Dichlorobenzene	180	1100	870	5300
1,4-Dichlorobenzene	180	1100	4500	28000

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	86	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-100-SG-033103

ID#: 0304003B-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040116</b>	<b>Date of Collection:</b>	<b>3/31/03</b>
<b>Dil. Factor:</b>	<b>179</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	90	230	Not Detected	Not Detected
Methylene Chloride	90	320	Not Detected	Not Detected
1,1-Dichloroethane	90	370	Not Detected	Not Detected
cis-1,2-Dichloroethene	90	360	Not Detected	Not Detected
Chloroform	90	440	Not Detected	Not Detected
1,1,1-Trichloroethane	90	500	Not Detected	Not Detected
Benzene	90	290	660	2200
1,2-Dichloroethane	90	370	Not Detected	Not Detected
Trichloroethene	90	490	Not Detected	Not Detected
Tetrachloroethene	90	620	Not Detected	Not Detected
Chlorobenzene	90	420	32000	150000
alpha-Chlorotoluene	90	470	Not Detected U J	Not Detected U J
Acetone	360	860	Not Detected	Not Detected
Carbon Disulfide	360	1100	Not Detected	Not Detected
trans-1,2-Dichloroethene	360	1400	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	360	1100	Not Detected	Not Detected
Bromodichloromethane	360	2400	Not Detected	Not Detected
4-Methyl-2-pentanone	360	1500	Not Detected	Not Detected
Bromoform	360	3800	Not Detected	Not Detected
tert-Butylbenzene	360	2000	Not Detected	Not Detected
Naphthalene	1800	9500	Not Detected	Not Detected
1,2-Dichlorobenzene	90	550	810	4900
1,4-Dichlorobenzene	90	550	4400	27000

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	87	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-11-SG-033103

ID#: 0304003B-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>6040117</b>	<b>Date of Collection:</b>	<b>3/31/03</b>
<b>Dil. Factor:</b>	<b>1.91</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	170	950
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	92	630
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected U J	Not Detected U J
Acetone	3.8	9.2	Not Detected	Not Detected
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	83	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-9-SG-033103

ID#: 0304003B-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040120	Date of Collection:	3/31/03
Dil. Factor:	74.8	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	37	97	Not Detected	Not Detected
Methylene Chloride	37	130	Not Detected	Not Detected
1,1-Dichloroethane	37	150	Not Detected	Not Detected
cis-1,2-Dichloroethene	37	150	Not Detected	Not Detected
Chloroform	37	180	Not Detected	Not Detected
1,1,1-Trichloroethane	37	210	Not Detected	Not Detected
Benzene	37	120	Not Detected	Not Detected
1,2-Dichloroethane	37	150	Not Detected	Not Detected
Trichloroethene	37	200	Not Detected	Not Detected
Tetrachloroethene	37	260	55	380
Chlorobenzene	37	180	Not Detected	Not Detected
alpha-Chlorotoluene	37	200	Not Detected U J	Not Detected U J
Acetone	150	360	Not Detected	Not Detected
Carbon Disulfide	150	470	Not Detected	Not Detected
trans-1,2-Dichloroethene	150	600	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	150	450	Not Detected	Not Detected
Bromodichloromethane	150	1000	Not Detected	Not Detected
4-Methyl-2-pentanone	150	620	Not Detected	Not Detected
Bromoform	150	1600	Not Detected	Not Detected
tert-Butylbenzene	150	830	Not Detected	Not Detected
Naphthalene	750	4000	Not Detected	Not Detected
1,2-Dichlorobenzene	37	230	46	280
1,4-Dichlorobenzene	37	230	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	1800

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: SVP-6-SG-033103

ID#: 0304003B-19A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040119	Date of Collection:	3/31/03
Dil. Factor:	1.91	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.96	2.5	Not Detected	Not Detected
Methylene Chloride	0.96	3.4	Not Detected	Not Detected
1,1-Dichloroethane	0.96	3.9	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Chloroform	0.96	4.7	Not Detected	Not Detected
1,1,1-Trichloroethane	0.96	5.3	Not Detected	Not Detected
Benzene	0.96	3.1	Not Detected	Not Detected
1,2-Dichloroethane	0.96	3.9	Not Detected	Not Detected
Trichloroethene	0.96	5.2	Not Detected	Not Detected
Tetrachloroethene	0.96	6.6	150	1000
Chlorobenzene	0.96	4.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.96	5.0	Not Detected U J	Not Detected U J
Acetone	3.8	9.2	6.7	16
Carbon Disulfide	3.8	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.8	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	11	Not Detected	Not Detected
Bromodichloromethane	3.8	26	Not Detected	Not Detected
4-Methyl-2-pentanone	3.8	16	Not Detected	Not Detected
Bromoform	3.8	40	Not Detected	Not Detected
tert-Butylbenzene	3.8	21	Not Detected	Not Detected
Naphthalene	19	100	Not Detected	Not Detected
1,2-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.96	5.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	83	70-130



# AIR TOXICS LTD.

SAMPLE NAME: SVP-Background Sample-033103

ID#: 0304003B-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040121</b>	<b>Date of Collection:</b>	<b>3/31/03</b>
<b>Dil. Factor:</b>	<b>1.83</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.92	2.4	Not Detected	Not Detected
Methylene Chloride	0.92	3.2	Not Detected	Not Detected
1,1-Dichloroethane	0.92	3.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Chloroform	0.92	4.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.92	5.1	Not Detected	Not Detected
Benzene	0.92	3.0	Not Detected	Not Detected
1,2-Dichloroethane	0.92	3.8	Not Detected	Not Detected
Trichloroethene	0.92	5.0	Not Detected	Not Detected
Tetrachloroethene	0.92	6.3	Not Detected	Not Detected
Chlorobenzene	0.92	4.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.92	4.8	Not Detected U J	Not Detected U J
Acetone	3.7	8.8	Not Detected	Not Detected
Carbon Disulfide	3.7	12	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	15	Not Detected	Not Detected
Bromoform	3.7	38	Not Detected	Not Detected
tert-Butylbenzene	3.7	20	Not Detected	Not Detected
Naphthalene	18	97	Not Detected	Not Detected
1,2-Dichlorobenzene	0.92	5.6	Not Detected	Not Detected
1,4-Dichlorobenzene	0.92	5.6	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Trip Blank 033103

ID#: 0304003B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6040122	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected U J	Not Detected U J
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	83	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304003B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040107	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrahydrofuran	BLNK01	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304003B-22B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040107</b>	<b>Date of Collection:</b>	<b>NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected U J	Not Detected U J
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrahydrofuran	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	83	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304003B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	85
Methylene Chloride	80
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	85
Chloroform	85
1,1,1-Trichloroethane	89
Benzene	85
1,2-Dichloroethane	85
Trichloroethene	86
Tetrachloroethene	84
Chlorobenzene	84
alpha-Chlorotoluene	88
Acetone	90
Carbon Disulfide	88
trans-1,2-Dichloroethene	87
2-Butanone (Methyl Ethyl Ketone)	90
Bromodichloromethane	95
4-Methyl-2-pentanone	94
Bromoform	98
tert-Butylbenzene	110
Naphthalene	92
1,2-Dichlorobenzene	84
1,4-Dichlorobenzene	87

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304003B-23B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	104
Methylene Chloride	108
1,1-Dichloroethane	114
cis-1,2-Dichloroethene	115
Chloroform	111
1,1,1-Trichloroethane	111
Benzene	108
1,2-Dichloroethane	121
Trichloroethene	114
Tetrachloroethene	118
Chlorobenzene	105
alpha-Chlorotoluene	61 Q
Acetone	94
Carbon Disulfide	81
trans-1,2-Dichloroethene	81
2-Butanone (Methyl Ethyl Ketone)	100
Bromodichloromethane	92
4-Methyl-2-pentanone	106
Bromoform	84
tert-Butylbenzene	77
Naphthalene	90
1,2-Dichlorobenzene	70
1,4-Dichlorobenzene	74

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	85	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304003B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/03

Compound	%Recovery
Vinyl Chloride	90
Methylene Chloride	78
1,1-Dichloroethane	74
cis-1,2-Dichloroethene	84
Chloroform	81
1,1,1-Trichloroethane	83
Benzene	90
1,2-Dichloroethane	85
Trichloroethene	89
Tetrachloroethene	89
Chlorobenzene	85
alpha-Chlorotoluene	99
Acetone	84
Carbon Disulfide	85
trans-1,2-Dichloroethene	88
2-Butanone (Methyl Ethyl Ketone)	84
Bromodichloromethane	85
4-Methyl-2-pentanone	86
Bromoform	81
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	85
1,4-Dichlorobenzene	82

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304003B-24B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	122
Methylene Chloride	109
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	119
Chloroform	110
1,1,1-Trichloroethane	110
Benzene	117
1,2-Dichloroethane	126
Trichloroethene	122
Tetrachloroethene	129
Chlorobenzene	109
alpha-Chlorotoluene	68 Q
Acetone	88
Carbon Disulfide	80
trans-1,2-Dichloroethene	87
2-Butanone (Methyl Ethyl Ketone)	95
Bromodichloromethane	82
4-Methyl-2-pentanone	96
Bromoform	70
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	71
1,4-Dichlorobenzene	71

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	86	70-130





### Sample Transportation Notice

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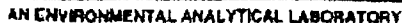
Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>5 Whiteside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6399</u> Collected By: Signature <u>Kate Linnell</u>			Project Info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solutia/Sanget</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>SEE NOTES</u> Specify _____  <u>ML 4-01-03</u>	
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Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
11A	SVP-10-SG-033103	3/31/03 ~ 1022	TD-15 refer to list previously submitted	29	8.5	9.0
12A	SVP-12-SG-033103	3/31/03 ~ 1041	TD-15 " "	28.5	8.5	8.5
13A	SVP-15-SG-033103	3/31/03 ~ 1145	TD-15 " "	29.0	9.0	8.0
14A	SVP-8-SG-033103	3/31/03 ~ 1154	TD-15 " "	29.0	8.0	8.5

Prepared By: Signature <u>Kate Linnell</u> Date/Time <u>3/31/03 1615</u> Relinquished By: (Signature) _____ Date/Time _____ Relinquished By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____		Notes: 48 hour TAT on analysis Standard TAT on report
Prepared By: Signature _____ Date/Time _____ Relinquished By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____		
Prepared By: Signature _____ Date/Time _____ Relinquished By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____		

Shipper Name	Air Entry #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
FedEx	88345504 3503	TR	—	Good	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> None	03040038

Lab Use Only



### Sample Transportation Notice

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Contact Person <u>Mike Susca</u> Company <u>TRE Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6399</u> Collected By: Signature <u>Kate Lunnik</u>			Project info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solutia Sarger</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush See notes Specify _____  <u>APR 4 - 01-07</u>	
---	--	--	---	--	--	--

Lab ID	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
<u>5A</u>	<u>SVP-10-SG-033103</u>	<u>3/31/03 ~ 1412</u>	<u>TD-15-refer to analysis last previously submitted</u>	<u>30</u>	<u>8</u>	<u>8 C "H"</u>
<u>6A</u>	<u>SVP-100-SG-033103</u>	<u>3/31/03 ~ 1412</u>	<u>TO-15-</u>	<u>"</u>	<u>"</u>	<u>"</u>

Relinquished by: (Signature) Date/Time <u>Kate Lunnik 3/31/03 1646</u>		Received By: (Signature) Date/Time _____		<b>Notes:</b> <u>4B hour TAT on analysis</u> <u>Standard TAT on report</u>
Relinquished by: (Signature) Date/Time _____		Received By: (Signature) Date/Time _____		
Relinquisher By: (Signature) Date/Time _____		Received By: (Signature) Date/Time <u>Tommy Baskin ATL 3/4/03 920</u>		

Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
<u>FedEx</u>	<u>8334 3504 3508</u>	<u>TB</u>	<u>---</u>	<u>Good</u>	<u>Yes</u> No None	<u>0304003P</u>

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## CHAIN-OF-CUSTODY RECORD

Page \_\_\_\_ of \_\_\_\_

Contact Person <u>MIKE SUSCA</u> Company <u>IRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6299</u> Collected By: Signature <u>Kate Lamm</u>				Project Info: P.O. # _____ Project # <u>38182</u> Project Name <u>Structure / Sample</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>See Notes</u> Specify _____  <u>ML 4-1-03</u>	
---	--	--	--	---	--	--	--

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
17A	SVP-11-SG-033103	3/31/03 ~ 1548	TD-15 - refer to analyte list previously submitted	28.5	8.5	9.0"H
18A	SVP-4-SG-033103	3/31/03 ~ 1542	TD-15 - " "	28.5	8.5	8.5"H
19A	SVP-6-SG-033103	3/31/03 ~ 1528	TD-15 - " "	29	9	9.0"H
20A	Background Sample 033103	3/31/03 ~ 1547	TD-15 - " "	28	7.5	8.0"H

Requisitioned By: (Signature) <u>Kate Lamm</u> Date/Time <u>3/31/03 1025</u> Requisitioned By: (Signature) _____ Date/Time _____ Requisitioned By: (Signature) _____ Date/Time _____	Received By: (Signature) <u>Paula Lamm</u> Date/Time <u>7/1/03 915</u> Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____
--	--

Notes:  
 48 hr TAT on analysis  
 Standard TAT on report

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>FedEx</u>	<u>1833455043508</u>	<u>CA</u>		<u>Good</u>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> None	<u>0304003B</u>



# CHAIN-OF-CUSTODY RECORD

## Sample Transportation Notice

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Contact Person <u>Mike Sisco</u> Company <u>TLC Environmental</u> Address <u>5 Wilshire Crossing</u> City <u>Windsor</u> State <u>CA</u> Zip <u>90609</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6399</u> Collected By: Signature <u>[Signature]</u>				Project info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solubility/Survey</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush _____ Specify _____ <div style="text-align: right; margin-top: 10px;"><u>ML 4.01.0</u></div>	
--	--	--	--	--	--	---	--

Lab. ID.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
71A	Trip Blank 033103	3/31/03 1830	TD-15 refer to analysis list already submitted	NA	NA	NA
	Trip Blank 033103	3/31/03 1835	TD-13 " "	NA	NA	NA

Relinquished By: (Signature) Date/Time <u>[Signature]</u> 3/31/03 1830 Relinquished By: (Signature) Date/Time Relinquished By: (Signature) Date/Time		Received By: (Signature) Date/Time Received By: (Signature) Date/Time Received By: (Signature) Date/Time <u>[Signature]</u> 4/1/03 920		Notes: 48 hr TAT for analysis Standard TAT for report
---	--	---	--	---

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (C)	Condition	Custody Seals Intact?	Work Order #
	<u>FedEx</u>	<u>183345013508</u>	<u>TB</u>	<u>—</u>	<u>Good</u>	<u>Yes</u> No Nonc	<u>03042038</u>



# **AIR TOXICS LTD.**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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**(916) 985-1000 .FAX (916) 985-1020**

**Hours 8:00 A.M to 6:00 P.M. Pacific**

**E-mail to: [samplereceiving@airtoxics.com](mailto:samplereceiving@airtoxics.com)**



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0304003A**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia
<b>DATE RECEIVED:</b>	4/1/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/14/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	BBZ-Office-9910	Modified TO-15/TIC	6.5 "Hg
02A	BBZ-Intake-9584	Modified TO-15/TIC	6.5 "Hg
03A	BBG-Office-9571	Modified TO-15/TIC	6.5 "Hg
04A	BBG-Intake-96105	Modified TO-15/TIC	4.5 "Hg
05A	CCB-Office-TO1560	Modified TO-15/TIC	6.5 "Hg
06A	CCB-Intake-14883	Modified TO-15/TIC	4.5 "Hg
07A	BK-1st Fl. Office-24489	Modified TO-15/TIC	6.5 "Hg
08A	BK-Intake-33584	Modified TO-15/TIC	4.5 "Hg
09A	BK-Dist-TO1627	Modified TO-15/TIC	6.5 "Hg
10A	BK-Dist-Duplicate-1584	Modified TO-15/TIC	6.5 "Hg
11A	Lab Blank	Modified TO-15/TIC	NA
11B	Lab Blank	Modified TO-15/TIC	NA
12A	CCV	Modified TO-15/TIC	NA
12B	CCV	Modified TO-15/TIC	NA
13A	LCS	Modified TO-15/TIC	NA
13B	LCS	Modified TO-15/TIC	NA

CERTIFIED BY:

Laboratory Director

DATE: 04/14/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**TRC Environmental Corporation**  
**Workorder# 0304003A**

Ten 6 Liter Summa Canister samples were received on April 01, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
BFB acceptance criteria	CLP protocol	SW-846 protocol
Concentration of IS spike	10 ppbv	25 ppbv when 0.5/2.0 ppbv is used for the reporting limit
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	30% Difference	30% Difference with two allowed out up to 40%.
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Sample CCB-Office-TO1560 was analyzed 19 minutes past a 72 hour hold time. The client was notified and permission given to proceed with analysis and reporting.

The following compound, alpha-Chlorotoluene, indicated low bias (less than 70% expected recovery) in the daily CCV analyzed on 04/01/03. Associated non-detects in samples BBZ-Office-9910, BBZ-Intake-9584, BBG-Office-9571 and BBG-Intake-96105 were flagged to indicate estimated results with low bias.

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

By specific client request, Tetrafluoroethane was reported as a tentatively identified compound (TIC) to assist in evaluation of the client sampling system.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



# AIR TOXICS LTD.

SAMPLE NAME: BBZ-Office-9910

ID#: 0304003A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040108</b>	<b>Date of Collection:</b> 3/29/03
<b>Dil. Factor:</b>	<b>1.71</b>	<b>Date of Analysis:</b> 4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	60	210
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected U J	Not Detected U J
Acetone	3.4	8.2	7.4	18
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	20	61
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	130	530
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BBZ-Intake-9584

ID#: 0304003A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040109</b>	<b>Date of Collection:</b>	<b>3/29/03</b>
<b>Dil. Factor:</b>	<b>1.71</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	25	88
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected U J	Not Detected U J
Acetone	3.4	8.2	5.2	12
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	22	67
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	160	660
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BBG-Office-9571

ID#: 0304003A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>b040110</b>	<b>Date of Collection:</b>	<b>3/29/03</b>
<b>Dil. Factor:</b>	<b>1.71</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	87	310
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	0.86	2.8
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	0.86	4.0
alpha-Chlorotoluene	0.86	4.5	Not Detected U J	Not Detected U J
Acetone	3.4	8.2	110	260
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	21	62
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	5.4	22
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BBG-Intake-96105

ID#: 0304003A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>6040111</b>	<b>Date of Collection:</b> 3/29/03
<b>Dil. Factor:</b>	<b>1.58</b>	<b>Date of Analysis:</b> 4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.79	2.0	Not Detected	Not Detected
Methylene Chloride	0.79	2.8	Not Detected	Not Detected
1,1-Dichloroethane	0.79	3.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.79	3.2	Not Detected	Not Detected
Chloroform	0.79	3.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.79	4.4	Not Detected	Not Detected
Benzene	0.79	2.6	Not Detected	Not Detected
1,2-Dichloroethane	0.79	3.2	Not Detected	Not Detected
Trichloroethene	0.79	4.3	Not Detected	Not Detected
Tetrachloroethene	0.79	5.4	Not Detected	Not Detected
Chlorobenzene	0.79	3.7	Not Detected	Not Detected
alpha-Chlorotoluene	0.79	4.2	Not Detected U J	Not Detected U J
Acetone	3.2	7.6	Not Detected	Not Detected
Carbon Disulfide	3.2	10	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.2	13	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	9.5	9.8	30
Bromodichloromethane	3.2	22	Not Detected	Not Detected
4-Methyl-2-pentanone	3.2	13	Not Detected	Not Detected
Bromoform	3.2	33	Not Detected	Not Detected
tert-Butylbenzene	3.2	18	Not Detected	Not Detected
Naphthalene	16	84	Not Detected	Not Detected
1,2-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

**Container Type: 6 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	84	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCB-Office-TO1560

ID#: 0304003A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040116	Date of Collection:	3/29/03
Dil. Factor:	2.74	Date of Analysis:	4/1/03

Compound	Rot. Limit (ppbv)	Rot. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1.4	3.6	Not Detected	Not Detected
Methylene Chloride	1.4	4.8	440	1600
1,1-Dichloroethane	1.4	5.6	Not Detected	Not Detected
cis-1,2-Dichloroethene	1.4	5.5	Not Detected	Not Detected
Chloroform	1.4	6.8	Not Detected	Not Detected
1,1,1-Trichloroethane	1.4	7.6	Not Detected	Not Detected
Benzene	1.4	4.4	Not Detected	Not Detected
1,2-Dichloroethane	1.4	5.6	Not Detected	Not Detected
Trichloroethene	1.4	7.5	Not Detected	Not Detected
Tetrachloroethene	1.4	9.4	Not Detected	Not Detected
Chlorobenzene	1.4	6.4	1.6	7.7
alpha-Chlorotoluene	1.4	7.2	Not Detected	Not Detected
Acetone	5.5	13	20	49
Carbon Disulfide	5.5	17	Not Detected	Not Detected
trans-1,2-Dichloroethene	5.5	22	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.5	16	Not Detected	Not Detected
Bromodichloromethane	5.5	37	Not Detected	Not Detected
4-Methyl-2-pentanone	5.5	23	Not Detected	Not Detected
Bromoform	5.5	58	Not Detected	Not Detected
tert-Butylbenzene	5.5	30	Not Detected	Not Detected
Naphthalene	27	140	Not Detected	Not Detected
1,2-Dichlorobenzene	1.4	8.4	Not Detected	Not Detected
1,4-Dichlorobenzene	1.4	8.4	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCB-Intake-14883

ID#: 0304003A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040112	Date of Collection:	3/29/03
Dil. Factor:	1.58	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.79	2.0	Not Detected	Not Detected
Methylene Chloride	0.79	2.8	3.1	11
1,1-Dichloroethane	0.79	3.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.79	3.2	Not Detected	Not Detected
Chloroform	0.79	3.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.79	4.4	Not Detected	Not Detected
Benzene	0.79	2.6	0.92	3.0
1,2-Dichloroethane	0.79	3.2	Not Detected	Not Detected
Trichloroethene	0.79	4.3	Not Detected	Not Detected
Tetrachloroethene	0.79	5.4	Not Detected	Not Detected
Chlorobenzene	0.79	3.7	1.0	4.7
alpha-Chlorotoluene	0.79	4.2	Not Detected	Not Detected
Acetone	3.2	7.6	3.4	8.3
Carbon Disulfide	3.2	10	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.2	13	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	9.5	Not Detected	Not Detected
Bromodichloromethane	3.2	22	Not Detected	Not Detected
4-Methyl-2-pentanone	3.2	13	Not Detected	Not Detected
Bromoform	3.2	33	Not Detected	Not Detected
tert-Butylbenzene	3.2	18	Not Detected	Not Detected
Naphthalene	16	84	Not Detected	Not Detected
1,2-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BK-1st Fl. Office-24489

ID#: 0304003A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040108	Date of Collection:	3/29/03
Dil. Factor:	1.71	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	13	45
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected	Not Detected
Acetone	3.4	8.2	4.4	11
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	Not Detected	Not Detected
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	Not Detected	Not Detected
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BK-Intake-33584

ID#: 0304003A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>d040111</b>	<b>Date of Collection:</b>	<b>3/29/03</b>
<b>Dil. Factor:</b>	<b>1.58</b>	<b>Date of Analysis:</b>	<b>4/1/03</b>

Compound	Rot. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.79	2.0	Not Detected	Not Detected
Methylene Chloride	0.79	2.8	2.2	8.0
1,1-Dichloroethane	0.79	3.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.79	3.2	Not Detected	Not Detected
Chloroform	0.79	3.9	Not Detected	Not Detected
1,1,1-Trichloroethane	0.79	4.4	Not Detected	Not Detected
Benzene	0.79	2.6	Not Detected	Not Detected
1,2-Dichloroethane	0.79	3.2	Not Detected	Not Detected
Trichloroethene	0.79	4.3	Not Detected	Not Detected
Tetrachloroethene	0.79	5.4	Not Detected	Not Detected
Chlorobenzene	0.79	3.7	0.94	4.4
alpha-Chlorotoluene	0.79	4.2	Not Detected	Not Detected
Acetone	3.2	7.6	4.5	11
Carbon Disulfide	3.2	10	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.2	13	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	9.5	Not Detected	Not Detected
Bromodichloromethane	3.2	22	Not Detected	Not Detected
4-Methyl-2-pentanone	3.2	13	Not Detected	Not Detected
Bromoform	3.2	33	Not Detected	Not Detected
tert-Butylbenzene	3.2	18	Not Detected	Not Detected
Naphthalene	16	84	Not Detected	Not Detected
1,2-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected
1,4-Dichlorobenzene	0.79	4.8	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	91	70-130



# AIR TOXICS LTD.

SAMPLE NAME: BK-Dist-TO1627

ID#: 0304003A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040109	Date of Collection:	3/29/03
Dil. Factor:	1.71	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	24	86
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected	Not Detected
Acetone	3.4	8.2	4.0	9.7
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	Not Detected	Not Detected
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	Not Detected	Not Detected
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: BK-Dist-Duplicate-1584

ID#: 0304003A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040110	Date of Collection:	3/29/03
Dil. Factor:	1.71	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	18	62
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected	Not Detected
Acetone	3.4	8.2	4.1	9.8
Carbon Disulfide	3.4	11	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	Not Detected	Not Detected
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	Not Detected	Not Detected
Bromoform	3.4	36	Not Detected	Not Detected
tert-Butylbenzene	3.4	19	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ppbv
Tetrafluoroethane	359-35-3	NA	Not Detected
Tetrafluoroethane	BLNK01	NA	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304003A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040107	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304003A-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>6040107</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 4/1/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected U J	Not Detected U J
Acetone	2.0	4.8	Not Detected	Not Detected
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
tert-Butylbenzene	2.0	11	Not Detected	Not Detected
Naphthalene	10	53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	83	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304003A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	85
Methylene Chloride	80
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	85
Chloroform	85
1,1,1-Trichloroethane	89
Benzene	85
1,2-Dichloroethane	85
Trichloroethene	86
Tetrachloroethene	84
Chlorobenzene	84
alpha-Chlorotoluene	88
Acetone	90
Carbon Disulfide	88
trans-1,2-Dichloroethene	87
2-Butanone (Methyl Ethyl Ketone)	90
Bromodichloromethane	95
4-Methyl-2-pentanone	94
Bromoform	98
tert-Butylbenzene	110
Naphthalene	92
1,2-Dichlorobenzene	84
1,4-Dichlorobenzene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304003A-12B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	104
Methylene Chloride	108
1,1-Dichloroethane	114
cis-1,2-Dichloroethene	115
Chloroform	111
1,1,1-Trichloroethane	111
Benzene	108
1,2-Dichloroethane	121
Trichloroethene	114
Tetrachloroethene	118
Chlorobenzene	105
alpha-Chlorotoluene	61 Q
Acetone	94
Carbon Disulfide	81
trans-1,2-Dichloroethene	81
2-Butanone (Methyl Ethyl Ketone)	100
Bromodichloromethane	92
4-Methyl-2-pentanone	106
Bromoform	84
tert-Butylbenzene	77
Naphthalene	90
1,2-Dichlorobenzene	70
1,4-Dichlorobenzene	74

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	85	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304003A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d040103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/1/03

Compound	%Recovery
Vinyl Chloride	90
Methylene Chloride	78
1,1-Dichloroethane	74
cis-1,2-Dichloroethene	84
Chloroform	81
1,1,1-Trichloroethane	83
Benzene	90
1,2-Dichloroethane	85
Trichloroethene	89
Tetrachloroethene	89
Chlorobenzene	85
alpha-Chlorotoluene	99
Acetone	84
Carbon Disulfide	85
trans-1,2-Dichloroethene	88
2-Butanone (Methyl Ethyl Ketone)	84
Bromodichloromethane	85
4-Methyl-2-pentanone	86
Bromoform	81
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	85
1,4-Dichlorobenzene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304003A-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	b040104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/1/03

Compound	%Recovery
Vinyl Chloride	122
Methylene Chloride	109
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	119
Chloroform	110
1,1,1-Trichloroethane	110
Benzene	117
1,2-Dichloroethane	126
Trichloroethene	122
Tetrachloroethene	129
Chlorobenzene	109
alpha-Chlorotoluene	68 Q
Acetone	88
Carbon Disulfide	80
trans-1,2-Dichloroethene	87
2-Butanone (Methyl Ethyl Ketone)	95
Bromodichloromethane	82
4-Methyl-2-pentanone	96
Bromoform	70
tert-Butylbenzene	Not Spiked
Naphthalene	Not Spiked
1,2-Dichlorobenzene	71
1,4-Dichlorobenzene	71

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	86	70-130





# CHAIN-OF-CUSTODY RECORD

## Sample Transportation Notice

Requiring signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Requiring signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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Page \_\_\_\_ of \_\_\_\_

Contact Person <u>Gary Ritter</u> Company <u>TRC</u> Address <u>Subterrise Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>860-298-6256</u> FAX <u>860-298-6380</u> Collected By: Signature <u>Dennis P. Ryder</u>				Project Info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solutia</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush _____ Specify _____	
Lab ID	Field Sample I.D.	Date & Time	Analyses Requested		Canister Pressure / Vacuum		
			Start	Finish	Initial	Final	Receipt
01A	BBZ-Office-9910	3/29/03	13:36	21:58	28.0	6.0	6.5" Hg
02A	BBZ-Intake-9584		13:30	21:53	30.0	11.0	6.5" Hg
03A	BBG-Office-9571		13:16	21:29	30.0	7.0	6.5" Hg
04A	BBG-Intake-96105		13:21	21:34	28.0	8.0	4.5" Hg
05A	CCB-Office-701560		13:08	21:16	28.5	7.0	6.5" Hg
06A	CCB-Intake-14883		12:39	21:11	29.5	6.5	4.5" Hg
07A	BK-1 <sup>st</sup> Fl. Office-24489		12:08	20:16	27.5	5.1	6.5" Hg
08A	BK-Intake-33584		12:30	20:55	29.0	5.0	4.5" Hg
09A	BK-Dist-701627		12:19	20:32	29.0	7.0	6.5" Hg
10A	BK-Dist-Duplicate-1584		12:20	20:37	30.0	8.5	6.5" Hg
Relinquished By: (Signature) <u>Dennis P. Ryder</u> Date/Time <u>3/31/03 09:00</u> Relinquished By: (Signature) _____ Date/Time _____ Relinquished By: (Signature) _____ Date/Time _____			Received By: (Signature) <u>Paula M. ATC</u> Date/Time <u>4/1/03 9:30</u> Received By: (Signature) _____ Date/Time _____ Received By: (Signature) _____ Date/Time _____				
Notes:							
Lab Use Only	Shipper Name <u>Fed Ex</u>	Air Bill # <u>802462232244</u>	Opened By: <u>CA</u>	Temp. (°C) _____	Condition <u>Good</u>	Custody Seal Intact? <u>Yes</u> <input checked="" type="radio"/> <u>No</u> <input type="radio"/> <u>None</u> <input type="radio"/>	Work Order # <u>0304003</u>



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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

## WORK ORDER #: 0304039R1

### Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia/Sauget
<b>DATE RECEIVED:</b>	4/2/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/14/03		
<b>DATE REISSUED:</b>	4/15/01		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	SVP-1-SG-040103	Modified TO-13A/TIC
01AA	SVP-1-SG-040103 Duplicate	Modified TO-13A/TIC
02A	SVP-2-SG-040103	Modified TO-13A/TIC
03A	SVP-3-SG-040103	Modified TO-13A/TIC
04A	SVP-4-SG-040103	Modified TO-13A/TIC
05A	SVP-5-SG-040103	Modified TO-13A/TIC
06A	SVP-14-SG-040103	Modified TO-13A/TIC
07A	SVP-17-SG-040103	Modified TO-13A/TIC
08A	SVP-140-SG-040103	Modified TO-13A/TIC
09A	Background Air Sample 040103-AM	Modified TO-13A/TIC
10A	Background Air Sample 040103-PM	Modified TO-13A/TIC
11A	Trip Blank 040103	Modified TO-13A/TIC
12A	Lab Blank	Modified TO-13A/TIC
13A	LCS	Modified TO-13A/TIC

CERTIFIED BY:

Laboratory Director

DATE: 04/15/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**Modified TO-13A**  
**TRC Environmental Corporation**  
**Workorder# 0304039R1**

Eleven XAD VOST Tube samples were received on April 02, 2003. The laboratory performed the analysis via Modified EPA Method TO-13A using GC/MS in the full scan mode. The soxhlet extraction and extract concentration to 1.0mL were performed via modified method 3540. See the data sheets for the reporting limits for each compound. Duplicate extraction cannot be performed on PUF/XAD2 media, therefore duplicate results are derived from analyzing the extract twice.

<b>Requirement</b>	<b>TO-13A</b>	<b>ATL Modifications</b>
Extraction Solvent	Use of PUF only requires use of 10% ether in hexane; separate extraction of filter in DCM. Use of XAD only requires use of DCM; extract filter with XAD.	Use PUF/XAD-2 cartridge; extract cartridge + filter together in DCM.
Glassware Cleaning	Cleaning series consisting of rinsing glassware with last solvent, acetone, hexane, water/detergent, DI H2O, muffle furnace @400 deg for 4 hrs.	Pre-soak in a 5 % Chem-Solv solution at least once per week, a water/detergent wash, soaking in tap water for at least 1 hr, and a DI H2O rinse. Glassware is then set to dry or rinsed with Methanol. Glassware is pre-rinsed with DCM prior to use.
Extract Cleanup	Elute extract through silica gel prior to analysis.	No clean up used, experience shows that step does not improve method performance for typical air samples.
Surrogate Concentration	1.0 ug final concentration.	50 ug final concentration for full scan, 2.0 ug for SIM.
Standard Preparation	Standards prepared in Hexane.	Standards prepared in Methylene Chloride.
Surrogate Recovery Limit	60 - 120%	50-150% for (non-PAH) surrogates that are not included in TO-13A
Sampling Volume	TO-13	Sampling volume was supplied by the client. A sample volume of 1.0 m3 was assumed for all QC samples.

**Receiving Notes**

Samples were not wrapped in aluminum foil and therefore came in contact with plastic shipping bags. The client was notified via the Login email that contact with plastic may cause contamination unrelated to the actual sampling event. ATL proceeded with the analysis.

**Analytical Notes**

There were no analytical discrepancies.

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak

displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

The client requested an abbreviated target analyte list. The associated LCS's were spiked with representative compounds as per the method.

THE WORKORDER WAS REISSUED ON 04/15/03 TO REPORT THE DUPLICATE ANALYSIS OF SAMPLE SVP-1-SG-040103 AND AMEND THE SURROGATE METHOD LIMITS FOR THE LCS.

**Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

E - Exceeds instrument calibration range.

Q - Exceeds quality control limits.

S - Saturated peak.

J - Estimated value.

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

U - Compound analyzed for but not detected above the reporting limit.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# AIR TOXICS LTD.

SAMPLE NAME: SVP-1-SG-040103

ID#: 0304039R1-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040922	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/9/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	86	50-150
Phenol-d5	89	50-150
Nitrobenzene-d5	84	50-150
2-Fluorobiphenyl	83	60-120
2,4,6-Tribromophenol	92	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-1-SG-040103 Duplicate

ID#: 0304039R1-01AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040923	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/9/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	86	50-150
Phenol-d5	91	50-150
Nitrobenzene-d5	84	50-150
2-Fluorobiphenyl	82	60-120
2,4,6-Tribromophenol	91	50-150
Terphenyl-d14	92	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-2-SG-040103

ID#: 0304039R1-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040924	Date of Collection:	4/1/03
DI. Factor:	1.00	Date of Analysis:	4/9/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	72	50-150
Phenol-d5	79	50-150
Nitrobenzene-d5	70	50-150
2-Fluorobiphenyl	73	60-120
2,4,6-Tribromophenol	85	50-150
Terphenyl-d14	85	60-120



# AIR TOXICS LTD.

SAMPLE NAME: SVP-3-SG-040103

ID#: 0304039R1-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	K040925	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/9/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	89	50-150
Phenol-d5	96	50-150
Nitrobenzene-d5	87	50-150
2-Fluorobiphenyl	83	60-120
2,4,6-Tribromophenol	97	50-150
Terphenyl-d14	96	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-4-SG-040103

ID#: 0304039R1-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040926	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	82	50-150
Phenol-d5	87	50-150
Nitrobenzene-d5	78	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	85	50-150
Terphenyl-d14	88	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-5-SG-040103

ID#: 0304039R1-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	K040927	Date of Collection:	4/1/03
DR. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	88	50-150
Phenol-d5	93	50-150
Nitrobenzene-d5	88	50-150
2-Fluorobiphenyl	87	60-120
2,4,6-Tribromophenol	95	50-150
Terphenyl-d14	96	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-14-SG-040103

ID#: 0304039R1-06A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040928	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	8.6

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	104	50-150
Phenol-d5	97	50-150
Nitrobenzene-d5	96	50-150
2-Fluorobiphenyl	92	60-120
2,4,6-Tribromophenol	94	50-150
Terphenyl-d14	99	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-17-SG-040103

ID#: 0304039R1-07A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040929r1	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	70	50-150
Phenol-d5	76	50-150
Nitrobenzene-d5	68	50-150
2-Fluorobiphenyl	71	60-120
2,4,6-Tribromophenol	77	50-150
Terphenyl-d14	82	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-140-SG-040103

ID#: 0304039R1-08A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040930	Date of Collection:	4/1/03
DL Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	6.4

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	103	50-150
Phenol-d5	101	50-150
Nitrobenzene-d5	98	50-150
2-Fluorobiphenyl	91	60-120
2,4,6-Tribromophenol	104	50-150
Terphenyl-d14	100	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Background Air Sample 040103-AM

ID#: 0304039R1-09A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040931	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	85	50-150
Phenol-d5	93	50-150
Nitrobenzene-d5	86	50-150
2-Fluorobiphenyl	84	60-120
2,4,6-Tribromophenol	95	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Background Air Sample 040103-PM

ID#: 0304039R1-10A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040932	Date of Collection:	4/1/03
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	74	50-150
Phenol-d5	80	50-150
Nitrobenzene-d5	75	50-150
2-Fluorobiphenyl	74	60-120
2,4,6-Tribromophenol	81	50-150
Terphenyl-d14	84	60-120



# AIR TOXICS LTD.

SAMPLE NAME: Trip Blank 040103

ID#: 0304039R1-11A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k041004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/10/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	83	50-150
Phenol-d5	87	50-150
Nitrobenzene-d5	83	50-150
2-Fluorobiphenyl	80	60-120
2,4,6-Tribromophenol	86	50-150
Terphenyl-d14	92	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304039R1-12A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040920	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/9/03
		Date of Extraction:	4/4/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	74	50-150
Phenol-d5	79	50-150
Nitrobenzene-d5	75	50-150
2-Fluorobiphenyl	71	60-120
2,4,6-Tribromophenol	81	50-150
Terphenyl-d14	82	60-120

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304039R1-13A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name	k040921	Date of Collection	NA
Dil. Factor	1.00	Date of Analysis	4/9/03
		Date of Extraction	4/4/03

Compound	%Recovery
Phenol	64
2-Chlorophenol	66
1,4-Dichlorobenzene	64
N-Nitroso-di-n-propylamine	72
1,2,4-Trichlorobenzene	67
4-Chloro-3-methylphenol	76
Acenaphthene	68
4-Nitrophenol	61
2,4-Dinitrotoluene	68
Pentachlorophenol	61
Pyrene	70

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	60	50-150
Phenol-d5	63	50-150
Nitrobenzene-d5	66	50-150
2-Fluorobiphenyl	66	60-120
2,4,6-Tribromophenol	79	50-150
Terphenyl-d14	75	60-120



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## CHAIN-OF-CUSTODY RECORD

Page 1 of 2

Contact Person <u>MICHAEL SANCHEZ</u> Company <u>TRC ENVIRONMENTAL</u> Address <u>5 WATERSIDE CROSSING</u> City <u>LOANSBORO</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(860) 298-6234</u> FAX <u>(860) 298-6399</u> Collected By: Signature <u>[Signature]</u>				Project Info: P.O. # Project # <u>38162</u> Project Name <u>Santa/Santa</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>SEE NOTES</u> Specify	
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Lab ID	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Residual
01A	SVP-1-SG-040103	4/1/03 1604	TD-12 Pump Calibration Start / Finish 150.4 / 150.7	1349	1604	135
02A	SVP-2-SG-040103	4/1/03 1350	TD-13 150.5 ~ 153.9	1135	1350	135
03A	SVP-3-SG-040103	4/1/03 1401	TD-13 150.0 ~ 157.7	1146	1401	135
04A	SVP-4-SG-040103	4/1/03 1400	TD-13 149.2 ~ 155.9	1145	1400	135
05A	SVP-5-SG-040103	4/1/03 1141	TD-13 149.5 ~ 151.2	0926	1141	135
06A	SVP-14-SG-040103	4/1/03 1349	TD-13 75.29 ~ 75.84 76.71	0919	1349	270
07A	SVP-17-SG-040103	4/1/03 1207	TD-13 149.1 ~ 151.9	0952	1207	135
08A	SVP-140-SG-040103	4/1/03 1249	TD-13 75.09 ~ 76.20	0919	1349	270
09A	Background Air Sample 040103-AM	4/1/03 1124	TD-13 149.2 ~ 155.7	0909	1124	135
10A	Background Air Sample 040103-PM	4/1/03 1501	TD-13 149.1 ~ 151.9	1246	1501	135

Relinquished By: (Signature) Date/Time <u>[Signature]</u> 4/1/03 1445	Received By: (Signature) Date/Time <u>[Signature]</u> 4/2/03 915	Notes: 48 hr. TAT on analysis Standard TAT in report (include data validation package).
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time	
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seal's Intact?	Work Order #
	FedEx	83974836939B	[Signature]	3.4	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	0504039



## CHAIN-OF-CUSTODY RECORD

### Sample Transportation Notice

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Page 2 of 2

Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CA</u> Zip <u>96095</u> Phone <u>(866) 298-6234</u> FAX <u>(866) 298-6399</u> Collected By: Signature <u>Kate Lannier</u>			Project info: P.O. # _____ Project # <u>39182</u> Project Name <u>Solution/Surget</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>SEE NOTES</u> Specify _____	
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Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
<u>11A</u>	<u>Tip Blank CH0103</u>	<u>4/1/03 ~ 1415</u>	<u>TD-13 Refer to analysis list previously submitted</u>	—	—	—

Relinquished By (Signature) Date/Time <u>Kate Lannier 4/1/03 1445</u> Relinquished By (Signature) Date/Time _____ Relinquished By (Signature) Date/Time _____	Received By (Signature) Date/Time <u>Kenneth J. Gomez 4/2/03 9:15</u> Received By (Signature) Date/Time _____ Received By (Signature) Date/Time _____
--	--

Notes: <u>48 hr TAT in analysis</u> <u>Standard TAT in report (include</u> <u>data validation package).</u>	
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Lab Use Only	Shipper Name <u>FedEx</u>	Air Bill # <u>18397 4836 9393</u>	Opened By: <u>JS</u>	Temp. (°C) <u>34</u>	Condition: <u>Good</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	Work Order # <u>0304039</u>
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# **AIR TOXICS LTD.**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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**(916) 985-1000 .FAX (916) 985-1020**

**Hours 8:00 A.M to 6:00 P.M. Pacific**

**E-mail to: [samlereceiving@airtoxics.com](mailto:samlereceiving@airtoxics.com)**



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0304006**

## Work Order Summary

<b>CLIENT:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095	<b>BILL TO:</b>	Mr. Gary Ritter TRC Environmental Corporation 5 Waterside Crossing Windsor, CT 06095
<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	38182 Solutia/Sauget
<b>DATE RECEIVED:</b>	4/1/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/14/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	SVP-16-SG-033103	Modified TO-13A/TIC
02A	SVP-12-SG-033103	Modified TO-13A/TIC
03A	SVP-15-SG-033103	Modified TO-13A/TIC
04A	SVP-8-SG-033103	Modified TO-13A/TIC
05A	SVP-11-SG-033103	Modified TO-13A/TIC
06A	SVP-10-SG-033103	Modified TO-13A/TIC
07A	SVP-100-SG-033103	Modified TO-13A/TIC
08A	SVP-6-SG-033103	Modified TO-13A/TIC
09A	SVP-9-SG-033103	Modified TO-13A/TIC
09AA	SVP-9-SG-033103 Duplicate	Modified TO-13A/TIC
10A	Background Sample 033103	Modified TO-13A/TIC
11A	BBZ-Office-01	Modified TO-13A/TIC
12A	BBZ-Intake-02	Modified TO-13A/TIC
13A	BBG-Office-03	Modified TO-13A/TIC
14A	BBG-Intake-04	Modified TO-13A/TIC
15A	CCB-Office-05	Modified TO-13A/TIC
16A	CCB-Intake-06	Modified TO-13A/TIC
17A	BK-1st Fl. Office-07	Modified TO-13A/TIC
18A	BK-Intake-08	Modified TO-13A/TIC
18AA	BK-Intake-08 Duplicate	Modified TO-13A/TIC

Continued on next page



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**WORK ORDER #: 0304006**

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<b>PHONE:</b>	860-298-6300	<b>P.O. #</b>	
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<b>DATE RECEIVED:</b>	4/1/03	<b>CONTACT:</b>	Betty Chu
<b>DATE COMPLETED:</b>	4/14/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
19A	BK-Dist-09	Modified TO-13A/TIC
20A	BK-Dist-Duplicate-10	Modified TO-13A/TIC
21A	Blank-11	Modified TO-13A/TIC
22A	Trip Blank 033103	Modified TO-13A/TIC
23A	Lab Blank	Modified TO-13A/TIC
23B	Lab Blank	Modified TO-13A/TIC
24A	LCS	Modified TO-13A/TIC
24B	LCS	Modified TO-13A/TIC

CERTIFIED BY:

Laboratory Director

DATE: 04/14/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-13**  
**TRC Environmental Corporation**  
**Workorder# 0304006**

Twenty Two VOST XAD Tube samples were received on April 01, 2003. The laboratory performed the analysis via Modified EPA Method TO-13 using GC/MS in the full scan mode. The soxhlet extraction and extract concentration to 1.0mL were performed via modified method 3540. See the data sheets for the reporting limits for each compound. Duplicate extraction cannot be performed on VOST XAD Tube media, therefore duplicate results are derived from analyzing the extract twice.

<i>Requirement</i>	<i>TO-13A</i>	<i>ATL Modifications</i>
Extraction Solvent	Use of PUF only requires use of 10% ether in hexane; separate extraction of filter in DCM. Use of XAD only requires use of DCM; extract filter with XAD.	Use PUF/XAD-2 cartridge; extract cartridge + filter together in DCM.
Glassware Cleaning	Cleaning series consisting of rinsing glassware with last solvent, acetone, hexane, water/detergent, DI H <sub>2</sub> O, muffle furnace @400 deg for 4 hrs.	Pre-soak in a 5 % Chem-Solv solution at least once per week, a water/detergent wash, soaking in tap water for at least 1 hr, and a DI H <sub>2</sub> O rinse. Glassware is then set to dry or rinsed with Methanol. Glassware is pre-rinsed with DCM prior to use.
Extract Cleanup	Elute extract through silica gel prior to analysis.	No clean up used, experience shows that step does not improve method performance for typical air samples.
Surrogate Concentration	1.0 ug final concentration.	50 ug final concentration for full scan, 2.0 ug for SIM.
Standard Preparation	Standards prepared in Hexane.	Standards prepared in Methylene Chloride.
Surrogate Recovery Limit	60 - 120%	50-150% for (non-PAH) surrogates that are not included in TO-13A
Sampling Volume	TO-13	Sampling volume was supplied by the client. A sample volume of 1.0 m <sup>3</sup> was assumed for all QC samples.

**Receiving Notes**

The chain of custody information for samples SVP-11-033103 and SVP-6-033103 did not match the entries on the sample tags. The discrepancy was noted in the Login email and the information on the chain of custody was used to process and report the samples.

VOST XAD Tube samples were not wrapped in aluminum foil and therefore came in contact with plastic shipping bags. The client was notified via the Login email that contact with plastic may cause contamination unrelated to the actual sampling event. ATL proceeded with the analysis.

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 degrees C. +/- 2 degrees. Coolant in the form of ice/blue ice was not present.

The client was notified via the login fax/email and the analysis proceeded.

### **Analytical Notes**

Specific analytes that are requested by the client to be reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected. Please note that the laboratory has not evaluated the stability of any heretofore tentatively identified compound in the vapor phase or for efficiency of recovery through the analytical system.

The recovery of internal standard 1,4-Dichlorobenzene-d4 in samples SVP-10-SG-033103 and SVP-100-SG-033103 was outside control limits due to matrix interferences. Dilution of the samples was required to meet method acceptance limits.

The client requested an abbreviated target analyte list. The associated LCS's were spiked with representative compounds as per the method.

### **Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

E - Exceeds instrument calibration range.

Q - Exceeds quality control limits.

S - Saturated peak.

J - Estimated value.

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

U - Compound analyzed for but not detected above the reporting limit.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# AIR TOXICS LTD.

SAMPLE NAME: SVP-16-SG-033103

ID#: 0304006-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040406	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	73	50-150
Phenol-d5	78	50-150
Nitrobenzene-d5	74	50-150
2-Fluorobiphenyl	72	60-120
2,4,6-Tribromophenol	80	50-150
Terphenyl-d14	80	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-12-SG-033103

ID#: 0304006-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040407	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	76	50-150
Phenol-d5	81	50-150
Nitrobenzene-d5	76	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	81	50-150
Terphenyl-d14	78	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-15-SG-033103

ID#: 0304006-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040408	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	76	50-150
Phenol-d5	79	50-150
Nitrobenzene-d5	74	50-150
2-Fluorobiphenyl	73	60-120
2,4,6-Tribromophenol	79	50-150
Terphenyl-d14	83	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-8-SG-033103

ID#: 0304006-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040409	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	79	50-150
Phenol-d5	83	50-150
Nitrobenzene-d5	78	50-150
2-Fluorobiphenyl	76	60-120
2,4,6-Tribromophenol	77	50-150
Terphenyl-d14	77	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-11-SG-033103

ID#: 0304006-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040410	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	81	50-150
Phenol-d5	86	50-150
Nitrobenzene-d5	79	50-150
2-Fluorobiphenyl	78	60-120
2,4,6-Tribromophenol	87	50-150
Terphenyl-d14	85	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-10-SG-033103

ID#: 0304006-06A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040710	Date of Collection:	3/31/03
Dil. Factor:	2.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	10	Not Detected
2-Chlorophenol	10	Not Detected
Nitrobenzene	2.0	Not Detected
2,4-Dichlorophenol	10	Not Detected
2,4,5-Trichlorophenol	10	Not Detected
2,4,6-Trichlorophenol	10	Not Detected
4-Chloroaniline	20	Not Detected
Pentachlorophenol	40	Not Detected
Aniline	2.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	59	50-150
Phenol-d5	63	50-150
Nitrobenzene-d5	83	50-150
2-Fluorobiphenyl	86	60-120
2,4,6-Tribromophenol	94	50-150
Terphenyl-d14	96	60-120



# AIR TOXICS LTD.

SAMPLE NAME: SVP-100-SG-033103

ID#: 0304006-07A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040711	Date of Collection:	3/31/03
Dil. Factor:	2.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	10	Not Detected
2-Chlorophenol	10	Not Detected
Nitrobenzene	2.0	Not Detected
2,4-Dichlorophenol	10	Not Detected
2,4,5-Trichlorophenol	10	Not Detected
2,4,6-Trichlorophenol	10	Not Detected
4-Chloroaniline	20	Not Detected
Pentachlorophenol	40	Not Detected
Aniline	2.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	55	50-150
Phenol-d5	60	50-150
Nitrobenzene-d5	76	50-150
2-Fluorobiphenyl	83	60-120
2,4,6-Tribromophenol	87	50-150
Terphenyl-d14	97	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-6-SG-033103

ID#: 0304006-08A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040413	Date of Collection:	3/31/03
Dil. Factor:	1:00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	70	50-150
Phenol-d5	76	50-150
Nitrobenzene-d5	69	50-150
2-Fluorobiphenyl	71	60-120
2,4,6-Tribromophenol	80	50-150
Terphenyl-d14	81	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-9-SG-033103

ID#: 0304006-09A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040414	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/4/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	80	50-150
Phenol-d5	83	50-150
Nitrobenzene-d5	74	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	88	50-150
Terphenyl-d14	85	60-120

# AIR TOXICS LTD.

SAMPLE NAME: SVP-9-SG-033103 Duplicate

ID#: 0304006-09AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040415	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/5/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	77	50-150
Phenol-d5	82	50-150
Nitrobenzene-d5	76	50-150
2-Fluorobiphenyl	76	60-120
2,4,6-Tribromophenol	91	50-150
Terphenyl-d14	85	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Background Sample 033103

ID#: 0304006-10A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040416	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/5/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	66	50-150
Phenol-d5	69	50-150
Nitrobenzene-d5	61	50-150
2-Fluorobiphenyl	65	60-120
2,4,6-Tribromophenol	72	50-150
Terphenyl-d14	70	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BBZ-Office-01

ID#: 0304006-11A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040417	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/5/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	71	50-150
Phenol-d5	75	50-150
Nitrobenzene-d5	69	50-150
2-Fluorobiphenyl	71	60-120
2,4,6-Tribromophenol	82	50-150
Terphenyl-d14	79	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BBZ-Intake-02

ID#: 0304006-12A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

<b>File Name:</b>	<b>y040717</b>	<b>Date of Collection:</b>	<b>3/29/03</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b>	<b>4/7/03</b>
		<b>Date of Extraction:</b>	<b>4/1/03</b>

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	82	50-150
Phenol-d5	87	50-150
Nitrobenzene-d5	81	50-150
2-Fluorobiphenyl	80	60-120
2,4,6-Tribromophenol	98	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BBG-Office-03

ID#: 0304006-13A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040718	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	84	50-150
Phenol-d5	89	50-150
Nitrobenzene-d5	85	50-150
2-Fluorobiphenyl	85	60-120
2,4,6-Tribromophenol	101	50-150
Terphenyl-d14	90	60-120



# AIR TOXICS LTD.

SAMPLE NAME: BBG-Intake-04

ID#: 0304006-14A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040719	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	66	50-150
Phenol-d5	70	50-150
Nitrobenzene-d5	65	50-150
2-Fluorobiphenyl	68	60-120
2,4,6-Tribromophenol	90	50-150
Terphenyl-d14	87	60-120

# AIR TOXICS LTD.

SAMPLE NAME: CCB-Office-05

ID#: 0304006-15A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040720	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	82	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	80	50-150
2-Fluorobiphenyl	81	60-120
2,4,6-Tribromophenol	96	50-150
Terphenyl-d14	89	60-120

# AIR TOXICS LTD.

SAMPLE NAME: CCB-Intake-06

ID#: 0304006-16A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

<b>File Name:</b>	y040721	<b>Date of Collection:</b>	3/29/03
<b>Dil. Factor:</b>	1.00	<b>Date of Analysis:</b>	4/7/03
		<b>Date of Extraction:</b>	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	76	50-150
Phenol-d5	80	50-150
Nitrobenzene-d5	75	50-150
2-Fluorobiphenyl	75	60-120
2,4,6-Tribromophenol	99	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BK-1st Fl. Office-07

ID#: 0304006-17A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040722	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	78	50-150
Phenol-d5	82	50-150
Nitrobenzene-d5	76	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	99	50-150
Terphenyl-d14	88	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BK-Intake-08

ID#: 0304006-18A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040723	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	80	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	81	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	99	50-150
Terphenyl-d14	93	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BK-Intake-08 Duplicate

ID#: 0304006-18AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040724	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/7/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	81	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	80	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	99	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BK-Dist-09

ID#: 0304006-19A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040808	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/8/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	64	50-150
Phenol-d5	66	50-150
Nitrobenzene-d5	61	50-150
2-Fluorobiphenyl	69	60-120
2,4,6-Tribromophenol	82	50-150
Terphenyl-d14	94	60-120

# AIR TOXICS LTD.

SAMPLE NAME: BK-Dist-Duplicate-10

ID#: 0304006-20A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040809	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/8/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	53	50-150
Phenol-d5	63	50-150
Nitrobenzene-d5	52	50-150
2-Fluorobiphenyl	64	60-120
2,4,6-Tribromophenol	77	50-150
Terphenyl-d14	87	60-120



# AIR TOXICS LTD.

SAMPLE NAME: Blank-11

ID#: 0304006-21A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040810	Date of Collection:	3/29/03
Dil. Factor:	1.00	Date of Analysis:	4/8/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	71	50-150
Phenol-d5	74	50-150
Nitrobenzene-d5	68	50-150
2-Fluorobiphenyl	73	60-120
2,4,6-Tribromophenol	83	50-150
Terphenyl-d14	91	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Trip Blank 033103

ID#: 0304006-22A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	K040811	Date of Collection:	3/31/03
Dil. Factor:	1.00	Date of Analysis:	4/8/03
		Date of Extraction:	4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	70	50-150
Phenol-d5	75	50-150
Nitrobenzene-d5	69	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	80	50-150
Terphenyl-d14	92	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304006-23A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

<b>File Name:</b>	y040404	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	1.00	<b>Date of Analysis:</b> 4/4/03
		<b>Date of Extraction:</b> 4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	77	50-150
Phenol-d5	78	50-150
Nitrobenzene-d5	74	50-150
2-Fluorobiphenyl	72	60-120
2,4,6-Tribromophenol	67	50-150
Terphenyl-d14	74	60-120

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304006-23B

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/8/03
		Date of Extraction: 4/1/03

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
2-Chlorophenol	5.0	Not Detected
Nitrobenzene	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
4-Chloroaniline	10	Not Detected
Pentachlorophenol	20	Not Detected
Aniline	1.0	Not Detected

## TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ug)
4-Nitrochlorobenzene	100-00-5	NA	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	80	50-150
Phenol-d5	84	50-150
Nitrobenzene-d5	79	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	80	50-150
Terphenyl-d14	93	60-120

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304006-24A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	y040405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/4/03
		Date of Extraction: 4/1/03

Compound	%Recovery
Phenol	74
2-Chlorophenol	75
1,4-Dichlorobenzene	70
N-Nitroso-di-n-propylamine	70
1,2,4-Trichlorobenzene	75
4-Chloro-3-methylphenol	78
Acenaphthene	75
4-Nitrophenol	65
2,4-Dinitrotoluene	68
Pentachlorophenol	61
Pyrene	75

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	70	50-150
Phenol-d5	73	50-150
Nitrobenzene-d5	77	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	79	50-150
Terphenyl-d14	77	60-120

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304006-24B

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

File Name:	k040807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/8/03
		Date of Extraction:	4/1/03

Compound	%Recovery
Phenol	69
2-Chlorophenol	68
1,4-Dichlorobenzene	64
N-Nitroso-di-n-propylamine	90
1,2,4-Trichlorobenzene	79
4-Chloro-3-methylphenol	85
Acenaphthene	78
4-Nitrophenol	67
2,4-Dinitrotoluene	77
Pentachlorophenol	73
Pyrene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2-Fluorophenol	59	50-150
Phenol-d5	70	50-150
Nitrobenzene-d5	78	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	92	50-150
Terphenyl-d14	96	60-120



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## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Contact: Person <u>Mike Susca</u> Company <u>IRC Environmental</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>(603) 298-0234</u> FAX <u>(603) 298-8399</u> Collected By: <u>Signed: Kate Laurier</u>	Project Info: P.O. # _____ Project # <u>38182</u> Project Name <u>Solutia/Sinclair</u>	Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush <u>SEE NOTES</u> Specify _____
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Lab I.D.	Field Sample I.D.	Date & Time	ANALYSIS	Analytes Requested (cc/min)		Canister Pressure / Vacuum		
				BURGE RATE	START / FINISH	Initial	Final	Receipt
01A	SVP-10-SG-033103	3/31/03 ~ 1237	TD-13	148.5	145.3	1022	1237	135
02A	SVP-12-SG-033103	3/31/03 ~ 1258	TD-13	149.9	150.7	1043	1258	135
03A	SVP-15-SG-033103	3/31/03 ~ 1404	TD-13	150.2	149.8	1149	1404	135
04A	SVP-8-SG-033103	3/31/03 ~ 1415	TD-13	150.2	149.8	1200	1415	135
05A	SVP-11-SG-033103	3/31/03 ~ 1805	TD-13	148.5	145.3	1550	1805	135
06A	SVP-10-SG-033103	3/31/03 ~ 1807	TD-13	74.8	77.15	1421	1851	270
07A	SVP-100-SG-033103	3/31/03 ~ 1851	TD-13	75.75	76.35	1421	1851	270
08A	SVP-6-SG-033103	3/31/03 ~ 1745	TD-13	150.2	149.8	1530	1745	135
09A	SVP-9-SG-033103	3/31/03 ~ 1805	TD-13	154.4	154.4	1550	1805	135
10A	Background Sample 033103	3/31/03 ~ 1807	TD-13	150.5	153.3	1552	1807	135

Relinquished By: (Signature) Kate Laurier Date/Time 3/31/03  
 Received By: (Signature) James Thomas Date/Time 4/1/03  
 Relinquished By: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received By: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Notes: 48 hr TAT on analysis  
 Standard TAT in report  
 \* TD-13 refer to analyte list previously submitted.

Lab Use Only	Shipper Name <u>FedEx</u>	Air Bill # <u>8334 5504 3530</u>	Opened By: <u>gy</u>	Temp. (°C) <u>Ambient</u>	Condition <u>Questionable</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	Work Order # <u>0304006</u>
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# CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Contact Person <u>Gary Ritter</u> Company <u>TRC</u> Address <u>5 Waterside Crossing</u> City <u>Windsor</u> State <u>CT</u> Zip <u>06095</u> Phone <u>860-298-6256</u> FAX <u>860-298-6380</u> Collected By: Signature <u>Dennis P. Ryder</u>	Project Info: P.O. # _____ Project # <u>38182-</u> Project Name <u>Solutia</u>	Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Rush _____ Specify _____
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Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Start / Finish Flow Rate / CC/min	Times		
					Canister Initial	Pressure Final	Vacuum Release
11A	BBZ-Office-01	3/29/03	T013	40.01 / 39.32	13:36	21:58	50.2
12A	BBZ-Intake-02			40.25 / 40.18	13:30	21:53	50.3
13A	BBG-Office-03			40.67 / 40.11	13:16	21:29	49.3
14A	BBG-Intake-04			40.78 / 40.50	13:21	21:34	49.3
15A	CCB-Office-05			40.87 / 40.16	13:08	21:16	48.8
16A	CCB-Intake-06			40.35 / 40.07	12:39	21:11	51.2
17A	BK-1 <sup>st</sup> Fl. Office-07			40.48 / 41.71	12:08	20:16	48.7
18A	BK-Intake-08			41.27 / 40.75	12:30	20:55	50.5
19A	BK-Dist-09			39.98 / 40.00	12:19	20:32	49.3
20A	BK-Dist-Duplicate-10			39.86 / 39.67	12:20	20:37	49.7

Relinquished By: (Signature) <u>Dennis P. Ryder</u> Date/Time <u>3/31/03 09:00</u>	Received By: (Signature) _____ Date/Time _____
Relinquished By: (Signature) _____ Date/Time _____	Received By: (Signature) <u>Callumade</u> Date/Time <u>4/1/03 930</u>
Relinquished By: (Signature) _____ Date/Time _____	Received By: (Signature) _____ Date/Time _____

Notes: Sample : BK-Dist-Duplicate-10  
Tip of sampling tube broke off during sampling.

Lab Use Only	Shipper Name <u>FedEx</u>	Air Bill # <u>8024622322</u>	Opened By: <u>CA</u>	Temp. (°C) <u>44</u>	Condition <u>too old</u>	Custody Seals Intact? Yes No <u>None</u>	Work Order # <u>0304006</u>
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4/1/03





# Sample Transportation Notice

Releasing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Releasing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. O.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630-4719  
(916) 985-1000 FAX: (916) 935-0020

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Contact Person <u>Mike Susca</u> Company <u>TRC Environmental</u> Address <u>State/City Crossing</u> City <u>Windsor</u> State <u>CA</u> Zip <u>96095</u> Phone <u>(916) 298-6234</u> FAX <u>(916) 298-6399</u> Collected By: Signature <u>Kate Leunert</u>			Project Info: P.O. # _____ Project # <u>2002</u> Project Name <u>Cumha/Cumet</u>		Turn Around Time: <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Push _____ Specify _____	
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Lab ID	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum		
				Initial	Final	Receipt
22A ETA 4/1/03	Trip Blank 033103	3/31/03 1830	TD-15 <u>per formal list already submitted</u>	NA	NA	NA
	Trip Blank 033103	3/31/03 1835	TD-13 " "	NA	NA	NA

Requisitioned By: (Signature) <u>Kate Leunert</u> Date/Time <u>3/30/03</u>		Received By: (Signature) _____ Date/Time _____		Notes: <u>48 hr TAT for analysis</u> <u>Standard TAT for report</u> <div style="text-align: right; font-weight: bold; font-size: 1.2em;">0304006</div>
Requisitioned By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____		
Requisitioned By: (Signature) _____ Date/Time _____		Received By: (Signature) _____ Date/Time _____		

Shipper Name <u>TRC</u> Air Bill # <u>1334</u>	Opened By: <u>TRC</u> Temp. (C) <u>-</u> Condition <u>Good</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	Work Order # <u>0304003</u>
Ambient Questionable			<u>4/1/03</u>

BOX 88AH31

2474-F41 Florida Power  
2474-F61 Florida Power  
Eh Vendros Related Services  
Ei Professional Activities  
Ej Nuclear Related Regulations  
Model Evaluation & development  
Exhibit for deposition - W.Kawaters